BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA



Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering.

Rulemaking 20-08-020 (Filed August 27, 2020)

REPLY BRIEF OF THE CALIFORNIA SOLAR & STORAGE ASSOCIATION

Tim Lindl
Julia Kantor
KEYES & FOX LLP
580 California Street, 12th Floor
San Francisco, CA 94104
Telephone: (510) 314-8385
Email: tlindl@keyesfox.com
jkantor@keyesfox.com

On behalf of the California Solar & Storage Association

September 14, 2021

SUBJECT MATTER INDEX

I.			MMER OF 2021'S CLEAR MESSAGE TO THE CPUC: DO NOT SLOW DINSTALLATIONS.		
II.	T	НЕ ЈОІ	INT IOUS HAVE NEM'S LEGAL FRAMEWORK BACKWARDS	5	
	A.	Federa	al Law Does Not Impose a "Net Consumer" Requirement	6	
	В.		PA Does Not Restrict the Level of Compensation Afforded Under State NEM ams.		
	C.	Federa	al Law Does Not Require Monthly True Ups.	12	
III.	R	ELIAN	ICE ON EXTRA RECORD EVIDENCE IS CAUSE FOR REVERSAL	13	
	A. The Joint Recommendations and the Pro-Transmission Parties Present a False Record o Which the Commission Cannot Rely.				
	В.		OUs' Brief Violates Judge Hymes's Evidentiary Ruling and Then Still Gets th Wrong		
IV.	T	НЕ ЈОІ	INT RECOMMENDATIONS MUDDLE THE RECORD.	21	
	A.	Surpri	isingly Little Compromise from Parties That Mostly Agreed in the First Place	21	
	B.	TURN	N's Brief Attacks the Joint Recommendations.	23	
	C.	The Si	ignatories Conducted No Outreach to Truly Adverse Parties	24	
V.	S	COPIN	G RULING ISSUES	25	
	A.	identif	3: What method should the Commission use to analyze the program elements fied in Issue 4 and the resulting proposals, while ensuring the proposals comp he guiding principles?	oly	
		1. Su	stainable Growth, Cost Recovery Periods and Parties' Modeling	25	
		a.	Cost Recovery Periods	25	
		b.	Title 24	26	
		c.	CALSSA Correctly Noted the Post-NEM-2 Decline in Commercial Solar Installations.	28	
		2. Cc	ost-Effectiveness Should Take into Account the Societal Cost Test	29	

	3.	The Pro-Transmission Parties' Flawed Cost Shift Methodology and Other "Cost-Shift" Related Issues)
	4.	Cal Advocates Proposal Does Not Aid Electrification	5
	5.	Cal Advocates' Rate Escalation Assumptions Contradict Their Own Data and the Commission's Analysis	7
В.		ue 4: What program elements or specific features should the Commission include in a eccessor to the current net energy metering tariff?	
	1.	Low- and Moderate-Income Residential Customers and Equity Considerations39)
	2.	CALSSA's Export Compensation Approach Is Sound)
	3.	CALSSA's Glidepath Proposal Is Essential and Correct	2
	4.	Solar Fees and Rate Requirements	5
		a. There is No Cost-of-Service Basis for Solar Fees on the Record45	5
		b. Neither "Ratepayer Indifference" Nor the PCIA Can Be Applied to NEM Customers	3
		c. SDG&E's September 1 Filing Undermines Parties' Call for Default Electrification Rates as a Result of This Proceeding	l
		d. TURN's Proposal Simply Does Not Work	2
	5.	TURN's Dispatch Obligations	2
	6.	The IOUs Seek to Foist the Cost of Interconnection and Communications Requirements on Customers With No Current Benefit	3
	7.	Reasoning to Allow Maintenance Is Still Valid	5
C.	the	ue 5: Which of the analyzed proposals should the Commission adopt as a successor to current net energy metering tariff and why? What should the timeline be for plementation?	

	1. The Joint Recommendations' Interim Tariff Timeline Supports the CALSSA's Proposed Timeline
	2. The Joint IOUs' Buy-All/Sell-All Tariff Should Be Rejected
D.	Issue 6: Other issues that may arise related to current net energy metering tariffs and subtariffs, which include but are not limited to the virtual net energy metering tariffs, net energy metering aggregation tariff, the Renewable Energy Self-Generation Bill Credit Transfer program, and the net energy metering fuel cell tariff
VI. R	ETROACTIVE CHANGES59
A.	Sierra Club's Electrification Proposal is Disputed and Should be Rejected59
В.	TURN's Opening Brief and the Joint Recommendations Studiously Ignore the Safe Harbor Provision
VII. C	ONCLUSION61

TABLE OF AUTHORITIES

Cases The Utility Reform Network v. Public Utilities Comm'n, 223 Cal. App. 4th 945 (2014)	14
FERC Decisions and Orders FERC Order No. 2003-A, 106 FERC ¶ 61,220, 2004 FERC LEXIS 449 (2004) MidAmerican Energy Co., 94 FERC ¶ 61,340 (2001)	8, 9 7, 8, 12 12
Statutes 16 U.S.C. § 2602(5)	9, 119, 119, 1112141414
Legislation AB 117 (2002)	49
Commission Rules of Practice and Procedure Rule 12.1(b)	3, 51
Commission Decisions D.14-03-041 D.19-08-001 D.20-08-001	52 38
D 21-02-007	39

SUMMARY OF RECOMMENDATIONS¹

The Commission need not take official notice of this summer's climate-caused tragedies to understand the local, national and global context in which this proceeding takes place. We are in the fight of our generation, we are losing, and time is running out. How can the answer to *any* energy and climate change-related question today be to *slow down* the pace of rooftop solar installations?

The State of California has worked hard to put these solutions in place. The California Solar and Storage Association's ("CALSSA") membership consists of mostly small companies that over the past decades have put their personal savings on the line to start a business to *do something* about the existential crises facing California, in contrast to the greedy villains that the Natural Resources Defense Council ("NRDC"), the Public Advocates Office at the California Public Utilities Commission ("Cal Advocates"), and the Coalition of California Utility Employees ("CUE") make them out to be. Margins are tight in a highly competitive market. These local companies are needed to deliver local energy storage, but they cannot succeed in their missions unless customers find solar investments economic, *i.e.*, a cost recovery period at or near the "sweet spot" of seven years. They cannot transition their business models abruptly to one based on storage technologies when the supply chain for those technologies cannot currently provide enough hardware. A glidepath is needed to ready customer-sited storage as a mainstream technology, not a cliff that will put hundreds of companies out of business, cost tens of thousands of jobs and set California back years in the fight against existential threats.

As the Joint IOUs state in their rebuttal testimony, "[i]n comparing the various proposals, the Commission will need to identify how best to balance those interests because it may not be possible to perfectly meet each of the Legislative mandates." When determining what balance to strike, CALSSA urges the Commission to focus on the best way to give individual customers as many options as possible to face the coming decades of natural disasters. The best solutions to meet these goals are found in CALSSA's proposals, which will keep the State's skilled solar workforce employed. Other parties' proposals will hamstring customers' abilities to install beneficial and resilient technologies at exactly the *worst* time in our fight against climate change.

CALSSA Reply Brief

This summary is included pursuant to Rule 13.12. It is repeated verbatim below in the body of the reply brief. Citations to quotations and record evidence are provided therein.

President Biden recognized the urgency of action and the magnitude of the response needed in his blueprint for a zero-carbon grid: "Achieving the decarbonization scenarios requires significant acceleration of clean energy deployment. Compared with the approximately 15 GW of solar capacity deployed in 2020, annual solar deployment doubles in the early 2020s and quadruples by the end of the decade in the Decarb+E scenario. Similarly substantial solar deployment rates continue in the 2030s and beyond." California will undermine the President's efforts to lead a massive increase in solar deployment if it adopts the Pro-Transmission Parties' proposals to push in the opposite direction.

The wealth transfer from ratepayers' pockets to utility shareholders' portfolios as a result of historically high infrastructure spending must stop. Utilities have an economic incentive to overbuild infrastructure, and the difference between historical spending and marginal costs is the cause of what is being measured as a cost shift. The best way to bring rates back in line with marginal costs is to leverage customer-sited solar and storage solutions to address the top 50 hours of statewide demand. Net energy metering ("NEM") is the cornerstone of building out the network of distributed resources that can help tackle that challenge. Stakeholders will create mechanisms for targeted storage dispatch in other proceedings.

California needs a lot more transmission to deliver power from large-scale renewables. CALSSA does not oppose thoughtful transmission build-out, but transmission is extremely expensive and difficult to site. CALSSA has dubbed certain parties fighting against rooftop solar the Pro-Transmission Parties because their proposals would require all of California's clean power to come from large, remote generating facilities. Their vision is unrealistic: California will fail to meet its clean energy targets if it makes it too difficult for customers to invest in local solar and storage. No party has even attempted to demonstrate that California can focus solely on large-scale resources if there is a reduction in customer-sited resources.

CALSSA's detailed and exhaustive Opening Brief already addresses nearly every argument raised in the Pro-Transmission Parties' Opening Briefs,² including the following:

• The futility of focusing on the NEM-2 Lookback study when no party is proposing that tariff as a successor for general market residential customers;

² Pacific Gas and Electric Company ("PG&E"), Southern California Edison Company ("SCE"), San Diego Gas and Electric Company ("SDG&E") (collectively, the "Joint IOUs"), Cal Advocates, TURN, and NRDC.

- The illegal and unprecedented nature of the fixed, unavoidable solar fees the Pro-Transmission Parties seek to levy on ratepayers;
- The consumer protection concerns created by proposals with complex adjustment mechanisms that cannot be reasonably forecasted, thereby limiting installers' ability to provide reasonable savings estimates and making administrative oversight of the successor tariff labor-intensive and unwieldy;
- The marathon implementation timelines and consumer protection concerns resulting from the Cal Advocates and The Utility Reform Network ("TURN") proposals that make up the Joint Recommendations;
- The unreasonable cost recovery periods and significant analytical gaps in the Pro-Transmission Parties' proposals;
- The Pro-Transmission Parties' poorly supported claims that their proposals will drive sustainable growth; and
- The Commission's requirement that the Total Resource Cost ("TRC") test be the primary test for evaluating cost-effectiveness in this proceeding.

This Reply Brief does not re-argue these issues since they have already been addressed. Instead, this brief focuses on the IOUs' backward reading of the *decades* of State and Federal precedent setting the NEM legal framework, the extra-record "evidence" on which the Joint Recommendations and Pro-Transmission Parties rely, their incorrect interpretation of State law, and setting the record straight in areas where parties have misrepresented CALSSA's position and arguments.

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering.

Rulemaking 20-08-020 (Filed August 27, 2020)

REPLY BRIEF OF THE CALIFORNIA SOLAR & STORAGE ASSOCIATION

Pursuant to Rule 13.12 of the Rules of Practice and Procedure of the California Public Utilities Commission ("Commission"), Commissioner Guzman Aceves's November 19, 2020 Scoping Ruling ("Scoping Ruling"),³ Administrative Law Judge ("ALJ") Hymes's April, 8, 2021 ruling revising the schedule of this proceeding,⁴ and the extension to the deadline for Opening Briefs granted by ALJ Hymes at hearing on August 3, 2021,⁵ the California Solar & Storage Association ("CALSSA") hereby submits this Reply Brief.

I. THE SUMMER OF 2021'S CLEAR MESSAGE TO THE CPUC: DO NOT SLOW DOWN SOLAR INSTALLATIONS.

The Commission need not take official notice of this summer's climate-caused tragedies to understand the local, national and global context in which this proceeding takes place. We are in the fight of our generation, we are losing, and time is running out. How can the answer to *any* energy and climate change-related question today be to *slow down* the pace of rooftop solar installations?

CALSSA Reply Brief

³ R.20-08-020, *Joint Assigned Commissioner's Scoping Memo and ALJ Ruling Directing Comments on Proposed Guiding Principles*, pp. 2-4 (November 19, 2020) ("Scoping Ruling").

⁴ R.20-08-020, *Email Ruling Noticing April 22, 2021 Workshop and Revising Procedural Schedule* (April 22, 2021).

⁵ 7 Tr. 1057:26-1058:5.

The State of California has worked hard to put these solutions in place. CALSSA's membership consists of mostly small companies that over the past decades have put their personal savings on the line to start a business to *do something* about the existential crises facing California, in contrast to the greedy villains that NRDC, Cal Advocates, and CUE make them out to be.⁶ Margins are tight in a highly competitive market.⁷ These local companies are needed to deliver local energy storage, but they cannot succeed in their missions unless customers find solar investments economic, *i.e.*, a cost recovery period at or near the "sweet spot" of seven years.⁸ They cannot transition their business models abruptly to one based on storage technologies when the supply chain for those technologies cannot currently provide enough hardware.⁹ A glidepath is needed to ready customer-sited storage as a mainstream technology, not a cliff that will put hundreds of companies out of business, cost tens of thousands of jobs and set California back years in the fight against existential threats.¹⁰

As the Joint IOUs state in their rebuttal testimony, "[i]n comparing the various proposals, the Commission will need to identify how best to balance those interests because it may not be possible to perfectly meet each of the Legislative mandates." When determining what balance to strike, CALSSA urges the Commission to focus on the best way to give individual customers

See R.20-08-020, Opening Comments of the California Solar & Storage Association on Order Instituting Rulemaking to Revisit Net Energy Metering Tariffs Pursuant to Decision 16-01-044, and to Address Other Issues Related to Net Energy Metering, pp. 2-3 (October 5, 2020); see also R.20-08-020, California Solar & Storage Association's Proposal For a Successor to the Current Net Energy Metering Tariff, p. 3 (March 15, 2021).

⁷ See Exh. CSA-02 at 5:18-21.

⁸ Exh. CSA-01 at 61:2-3.

⁹ Exh. CSA-02 at 42:2-9 and Attachments 4, 5, 6; Exh. CSA-06; 1 Tr. 122:4-125:6 (IOU – Tierney).

R.20-08-020, *Opening Brief of the California Solar & Storage Association*, pp. 106-123 (August 31, 2021) (discussing the factors necessitating a glidepath) ("CALSSA Opening Brief").

Exh. IOU-02 at 20:6-8.

as many options as possible to face the coming decades of natural disasters. The best solutions to meet these goals are found in CALSSA's proposals, which will keep the State's skilled solar workforce employed. Other parties' proposals will hamstring customers' abilities to install beneficial and resilient technologies at exactly the *worst* time in our fight against climate change.

President Biden recognized the urgency of action and the magnitude of the response needed in his blueprint for a zero-carbon grid: "Achieving the decarbonization scenarios requires significant acceleration of clean energy deployment. Compared with the approximately 15 GW of solar capacity deployed in 2020, annual solar deployment doubles in the early 2020s and quadruples by the end of the decade in the Decarb+E scenario. Similarly substantial solar deployment rates continue in the 2030s and beyond." California will undermine the President's efforts to lead a massive increase in solar deployment if it adopts the Pro-Transmission Parties' proposals to push in the opposite direction.

The wealth transfer from ratepayers' pockets to utility shareholders' portfolios as a result of historically high infrastructure spending must stop. Utilities have an economic incentive to overbuild infrastructure, and the difference between historical spending and marginal costs is the cause of what is being measured as a cost shift. The best way to bring rates back in line with marginal costs is to leverage customer-sited solar and storage solutions to address the top 50 hours of statewide demand. NEM is the cornerstone of building out the network of distributed resources that can help tackle that challenge. Stakeholders will create mechanisms for targeted storage dispatch in other proceedings.

_

U.S. Department of Energy, Office of Renewable Energy and Energy Efficiency, "Solar Futures Study," September 2021, p. viii, *available at* https://www.energy.gov/sites/default/files/2021-09/Solar%20Futures%20Study.pdf. If it chooses, the Commission can take official notice of this document pursuant to Rule 13.10.

California needs a lot more transmission to deliver power from large-scale renewables.

CALSSA does not oppose thoughtful transmission build-out, but transmission is extremely expensive and difficult to site. CALSSA has dubbed certain parties fighting against rooftop solar the Pro-Transmission Parties because their proposals would require all of California's clean power to come from large, remote generating facilities. Their vision is unrealistic: California will fail to meet its clean energy targets if it makes it too difficult for customers to invest in local solar and storage. No party has even attempted to demonstrate that California can focus solely on large-scale resources if there is a reduction in customer-sited resources.

CALSSA's detailed and exhaustive Opening Brief already addresses nearly every argument raised in the Pro-Transmission Parties' Opening Briefs, ¹³ including the following:

- The futility of focusing on the NEM-2 Lookback study when no party is proposing that tariff as a successor for general market residential customers;¹⁴
- The illegal and unprecedented nature of the fixed, unavoidable solar fees the Pro-Transmission Parties seek to levy on ratepayers;¹⁵
- The consumer protection concerns created by proposals with complex adjustment mechanisms that cannot be reasonably forecasted, thereby limiting installers' ability to provide reasonable savings estimates and making administrative oversight of the successor tariff labor-intensive and unwieldy;¹⁶
- The marathon implementation timelines and consumer protection concerns resulting from the Cal Advocates and TURN proposals that make up the Joint Recommendations; ¹⁷

Joint IOUs, Cal Advocates, TURN, NRDC.

¹⁴ CALSSA Opening Brief, pp. 17-18.

¹⁵ *Id.*, pp. 123-169.

Id., pp. 86-106, 182-184.

Id., pp. 201-212 (the Joint Recommendations includes an "interim tariff" akin to that from CalAdvocates' proposal to immediately close the NEM-2 tariff; these proposals suffer from the same shortcomings). See, e.g., R.20-08-020, Post Hearing Brief of the Natural Resource Defense Council, Appendix 1, Joint Recommendations of the Independent Parties for a Successor Tariff to the Current Net

- The unreasonable cost recovery periods and significant analytical gaps in the Pro-Transmission Parties' proposals;¹⁸
- The Pro-Transmission Parties' poorly supported claims that their proposals will drive sustainable growth; ¹⁹ and
- The Commission's requirement that the TRC test be the primary test for evaluating cost-effectiveness in this proceeding.²⁰

This Reply Brief will not re-argue these issues since they have already been addressed. Instead, this brief focuses on the IOUs' backward reading of the *decades* of State and Federal precedent setting the NEM legal framework, the extra-record "evidence" on which the Joint Recommendations and Pro-Transmission Parties rely, their incorrect interpretation of State law, and setting the record straight in areas where parties have misrepresented CALSSA's position and arguments.

II. THE JOINT IOUS HAVE NEM'S LEGAL FRAMEWORK BACKWARDS.

In their Opening Brief, the Joint IOUs set forth a "legal framework for net energy metering programs" that misinterprets Federal law.²¹ Federal law (1) does not impose a "net consumer" restriction on NEM customers, (2) does not restrict customers' ability to offset more than the generation component of a customer bill via netting, and (3) does not require any compensation for excess energy after a monthly billing period ends to be set at an avoided cost

Energy Metering Tariffs, p. 10 (Appendix 1 specifically referred to hereinafter as the "Joint Recommendations") (August 31, 2021) ("NRDC Opening Brief").

CALSSA Opening Brief, Sections III.B.1 and III.B.3, along with the elements leading to poor paybacks discussed in Sections III.C.2-3, III.C.5, III.C.6-III.C.8 and III.C.12.

¹⁹ *Id.*, Section III.B.1.

Id., pp. 42-43, 191-193.

R.20-08-020, *Joint Opening Brief of PG&E, SDG&E, and SCE*, pp. 5-21 (August 31, 2021) ("Joint IOUs Opening Brief").

rate. Adopting the Joint IOUs' arguments would be akin to concluding that the past twenty-plus years of net metering policy in California has been illegal and numerous states' net metering programs conflict with Federal law.

A. Federal Law Does Not Impose a "Net Consumer" Requirement.

NEM customers do not operate *outside* of Federal law or Federal Energy Regulatory

Commission ("FERC") jurisdiction, they work *within* a Federal framework in which netting
allows customer-generators to avoid making wholesale sales of electricity—sales for which

FERC has the authority to set rates. The Joint IOUs ignore this distinction and point to FERC

precedent addressing netting and FERC's jurisdiction over wholesale sales to suggest that a "net
consumer" requirement exists under Federal law that requires NEM customers to be net
consumers in order to avoid Federal jurisdiction.²² They then build upon this faulty foundation
to conclude that, if the State alters its sized-to-load requirement such that NEM customers are
"net sellers, instead of net consumers," this would result in "federal jurisdiction over the NEM

program that would . . . prevent[] customers from being able to receive compensation for exports
at a rate other than a wholesale avoided cost rate."²³ This concept of a "net consumer"
requirement is completely unsupported.

The Joint IOUs primarily rely on *MidAmerican Energy Co.*, 94 FERC ¶ 61,340 (2001), in which FERC considered MidAmerican's request for a declaration that "a state is preempted from allowing the individual homeowner's or farmer's purchase or sale of power from being measured

²² *Id.*, pp. 6-9.

Id., p. 14. See also id., pp. 100-101 ("Oversizing would violate California's net metering statutes, well settled Commission precedent dating back to 2002, and federal law, all of which require systems to be sized to historic onsite load so that the NEM customer is a net consumer, not a net seller or exporter. If customers want to oversize, the law requires them to sell all power exported to the utility grid at wholesale").

on a net basis."²⁴ MidAmerican argued that "every flow of power constitutes a sale, and, in particular, that every flow of power from a homeowner or farmer to MidAmerican must be priced consistent with the requirements of either PURPA or the FPA."²⁵ FERC found "no such requirement[,]" holding that "no sale occurs when an individual homeowner or farmer (or similar entity such as a business) installs generation and accounts for its dealings with the utility through the practice of netting."²⁶ Acknowledging that "[t]here may be, over the course of the billing period, either a net sale from the individual to the utility, or a net purchase by the individual from the utility[,]" FERC held that the Public Utility Regulatory Policies Act's ("PURPA") avoided cost pricing requirements only apply "[w]hen there is a net sale to a utility, and the individual's generation is a QF, [in which case] that net sale must be at an avoided cost rate consistent with PURPA."²⁷

The Joint IOUs claim that "FERC's decision disclaimed jurisdiction over NEM on the ground that such arrangements do not constitute wholesale power sales, but rather are billing arrangements because the NEM customer's system is not designed to produce a net sale."²⁸ However, FERC's holding was not dependent in any way upon whether the NEM customer's system was designed to produce a net sale. Neither the size of the NEM systems relative to load nor the likelihood of a net sale from these systems was at issue in the case. Rather, FERC articulated that the issue in the case was "how to measure the transaction between MidAmerican and . . . entities that have installed generation on their premises[,]" concluding that no sale occurs

²⁴ *MidAmerican Energy Co.*, 94 FERC ¶ 61,340, 62,263 (2001).

²⁵ *Id.*, 62,263.

Id., 62,262-62,263.

²⁷ *Id.*, 62,263.

Joint IOUs Opening Brief, p. 7 (emphasis added).

when a customer-generator accounts for its dealings with the utility through the practice of netting.²⁹

The Joint IOUs also point to FERC Order 2003-A and *Sun Edison LLC*, 129 FERC ¶ 61,146 (2009) in support of this argument that NEM customers must be net consumers, rather than net sellers, to avoid Federal jurisdiction.³⁰ However, both these authorities simply affirm holdings similar to FERC's holding in *MidAmerican*—that the practice of netting allows customers to export energy to the utility's system without being subject to FERC avoided cost pricing for those exports, and that FERC has only asserted its ratesetting jurisdiction over *net* sales of energy to a utility over the applicable billing period.³¹ The fact that FERC asserts ratesetting jurisdiction when a NEM customer produces more energy than it needs over the applicable billing period and makes a net sale of energy does not mean that Federal law imposes a "net consumer" restriction, as conceived by the Joint IOUs, that would result in FERC jurisdiction over compensation for *all exports* for customers that are "net sellers." Receiving

MidAmerican Energy Co., 94 FERC ¶ 61,340, 62,262-62,263 (2001).

Joint IOUs Opening Brief, pp. 8-9.

FERC Order No. 2003-A, 106 FERC ¶ 61,220, 2004 FERC LEXIS 449, **413-416 (2004) ("under most circumstances the Commission does not exert jurisdiction over a net energy metering arrangement when the owner of the generator receives a credit against its retail power purchases from the selling utility. Only if the Generating Facility produces more energy than it needs and makes a net sale of energy to a utility over the applicable billing period would the Commission assert jurisdiction."); Sun Edison LLC, 129 FERC ¶ 61,146, 61,620-61,621 (2009) ("The Commission has explained that net metering is a method of measuring sales of electric energy. Where there is no net sale over the billing period, the Commission has not viewed its jurisdiction as being implicated; that is, the Commission does not assert jurisdiction when the end-use customer that is also the owner of the generator receives a credit against its retail power purchases from the selling utility. Only if the end-use customer participating in the net metering program produces more energy than it needs over the applicable billing period, and thus is considered to have made a net sale of energy to a utility over the applicable billing period, has the Commission asserted jurisdiction . . . We agree that, where the net metering participant (i.e., the end-use customer that is the purchaser of the solar-generated electric energy from SunEdison) does not, in turn, make a net sale to a utility, the sale of electric energy by SunEdison to the end-use customer is not a sale for resale, and our jurisdiction under the FPA is not implicated").

avoided cost pricing for net exports *at the end of* an annual billing period does not mean there can be no exports *during* the billing period to offset purchases.

Further, FERC Order 2003-A's description of net metering participants as "net consumer[s]" also should not be taken out of context to lend support to the Joint IOUs' arguments.³² This passage quoted by the Joint IOUs is simply a description of the mechanics of the practice of netting, and ultimately how this practice "allows a retail electric customer to produce and sell power onto the Transmission System without being subject to the Commission's jurisdiction"³³; it does not suggest a requirement that NEM customers must be net consumers, or else be subject to Federal avoided cost pricing for *all exports*.

Finally, the Joint IOUs suggest that PURPA's definition of NEM bolsters their interpretation that NEM customers must be "net consumers." This statutory definition within the Federal standard established for NEM³⁵ includes the term "electric consumer," which the

³² Joint IOUs Opening Brief, p. 8; FERC Order No. 2003-A, 106 FERC ¶ 61,220, 2004 FERC LEXIS 449, **413-414 (2004).

FERC Order No. 2003-A, 106 FERC ¶ 61,220, 2004 FERC LEXIS 449, **413-414 (2004).

Joint IOUs Opening Brief, p. 8.

See 16 U.S.C. § 2621(d)(11). Note that this section to which the Joint IOUs cite is the statutory "Federal standard" of net metering set forth in 16 U.S.C. § 2621(d). 16 U.S.C. § 2621(a) provides that "[e]ach State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall consider each standard established by subsection (d) and make a determination concerning whether or not it is appropriate to implement such standard to carry out the purposes of this title . . . Nothing in this subsection prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to implement any such standard, pursuant to its authority under otherwise applicable State law." Therefore, this section does not prescribe the parameters of state NEM programs, but rather requires state regulatory authorities to consider this standard and determine whether or not it is appropriate to implement this standard.

¹⁶ U.S.C. § 2621(d)(11) ("Net metering. Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves. For purposes of this paragraph, the term 'net metering service' means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.").

Joint IOUs make a point to distinguish from an energy *producer/seller*.³⁷ However, this "electric consumer" term is defined by statute as "any person, State agency, or Federal agency, to which electric energy is sold other than for purposes of resale."³⁸ This definition does not contemplate restrictions based on whether a person is ultimately a net consumer of energy or a net producer of energy,³⁹ and it therefore does not support an argument that NEM customers must be "net consumers" to avoid Federal avoided cost pricing for all exports.

FERC precedent cited by the IOUs delineates the circumstances under which FERC jurisdictional wholesale sales occur in the context of customers participating in state net metering programs—it does not at all support the Joint IOUs' conception of a "net consumer" requirement. CALSSA supports the proposals of the Solar Energy Industries Association and Vote Solar ("SEIA/VS")⁴⁰ and Sierra Club⁴¹ that would allow customers to size systems larger than their historical annual onsite load in anticipation of expected electric load growth, and nothing in Federal law inhibits the Commission from adopting these proposals.

B. PURPA Does Not Restrict the Level of Compensation Afforded Under State NEM Programs.

The Joint IOUs also argue that Federal law provides no right to offset more than the generation component of a customer bill, which they point to as one reason why "California's NEM subsidy overcompensates adopters compared to federal law."⁴² To make this strained

Joint IOUs Opening Brief, p. 8.

³⁸ 16 U.S.C. § 2602(5).

The definition applies to any customer to which energy is sold other than for purposes of resale; regardless of whether the customer ultimately makes a FERC jurisdictional net sale at the end of a billing period such that it could be deemed a "net producer," the energy it purchased from the utility was not purchased for purposes of resale.

Exh. SVS-03 at 40:3-7.

Exh. SCL-01 at 6:23-27.

Joint IOUs Opening Brief, pp. 8-10.

argument, the Joint IOUs again rely on PURPA's definition of NEM within the Federal standard established for NEM,⁴³ suggesting that, because "PURPA defines NEM as an *energy for energy* transaction between an energy consumer . . . and the utility . . . PURPA merely permits energy supplied by the onsite generator to be used to offset energy delivered by the utility."⁴⁴

The cited definition simply describes the practice of netting, *i.e.*, replacing one kWh that would have been purchased from the utility with one kWh that is produced onsite. This practice completely zeros out the entire unit of energy consumption and demonstrates how states should value bill credits for netted energy: a netted out kWh replaces *all* components of a customer bill that would otherwise be charged for that unit of energy, including delivery charges for transmission and distribution. Nothing in this definition requires state NEM programs to design export compensation to only net the generation component. It supports the opposite conclusion: states should value netted energy at a level that includes *all* components of the netted kWh.

Relying on their warped interpretation of Federal law, the Joint IOUs claim that, by allowing customers to offset more than the generation component of their bill, the California NEM tariffs have been overcompensating participants in contravention of Federal law for over 20 years.⁴⁶ This conclusion is absurd. Federal law does not speak to or dictate the compensation for exports afforded to customers participating in state NEM programs.⁴⁷ It only dictates

⁴³ See 16 U.S.C. § 2621(d)(11).

Joint IOUs Opening Brief, p. 8 (emphasis changed from Joint IOUs Opening Brief).

⁴⁵ 16 U.S.C. § 2621(d)(11) ("service to an electric consumer under which electric energy generated by that electric consumer . . . and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.").

Joint IOUs Opening Brief, p. 9.

Note that this section to which the Joint IOUs cite is the statutory "Federal standard" of net metering set forth in 16 U.S.C. § 2621(d). 16 U.S.C. § 2621(a) provides that "[e]ach State regulatory

compensation for wholesale transactions,⁴⁸ *i.e.*, bill credits that are net sales at the end of the billing period.⁴⁹ FERC declined to entertain a similar argument to the one the Joint IOUs make here in a high profile case from the New England Ratepayers Association ("NERA") in 2020.⁵⁰ The Commission should not allow the Joint IOUs to succeed in California where NERA failed in Washington, D.C.⁵¹ It should reject any proposed reforms that rely on this invented concept in Federal law.⁵²

C. Federal Law Does Not Require Monthly True Ups.

Finally, the Joint IOUs' suggestion that "FERC's *MidAmerican*, Order 2003-A, and *Sun Edison* rulings . . . if applied literally . . . would require *any* compensation for excess energy *after* a monthly billing period ends to be set at an avoided cost rate" has no merit. FERC explicitly addressed the issue of acceptable billing periods for the purposes of assessing FERC

authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall consider each standard established by subsection (d) and make a determination concerning whether or not it is appropriate to implement such standard to carry out the purposes of this title . . . Nothing in this subsection prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate to implement any such standard, pursuant to its authority under otherwise applicable State law." Therefore, this section does not prescribe the parameters of state NEM programs, but rather requires state regulatory authorities to *consider* this standard and determine whether or not it is appropriate to implement this standard.

⁴⁸ See 18 C.F.R. § 292.304(d).

See MidAmerican Energy Co., 94 FERC ¶ 61,340, 62,263 (2001) (PURPA's requirement that QFs' net sales to a utility must be compensated at an avoided cost rate does not extend to transactions that are not net sales).

New England Ratepayers Association, 172 FERC ¶ 61,042, 61,358 (2020) ("NERA further argues that PURPA section 111(d) provides an offset for energy only, which 'infers' that the offset is equal to the avoided cost of energy").

⁵¹ *Id.* at 61,362-61,363 (dismissing NERA's petition).

Joint IOUs Opening Brief, pp. 9-10.

Id., p. 10. See also id., p. 67 ("Customers will be trued-up monthly, as opposed to annually, which is consistent with the federal law approach to using the monthly billing period to determine the amount of net exports that should be compensated at the avoided cost rate so that NEM customers receive appropriate price signals and remain net consumers, as opposed to net sellers/exporters.").

jurisdictional net sales in both *MidAmerican* and *SunEdison*. It confirmed in *Sun Edison* that, "in *MidAmerican*, [FERC] found that a one-month billing period was reasonable, but indicated that other billing periods could also be reasonable."⁵⁴ Therefore, these decisions explicitly reject the idea that FERC has mandated a monthly billing period as the only acceptable NEM design for purposes of assessing net sales, and the Joint IOUs' suggestion that compensation for excess energy at the end of a monthly billing period must be set at an avoided cost rate is wholly unsupported.

The Joint IOUs rely on this invented concept in Federal law to again assert that California has been overcompensating NEM customers—in this case, by allowing NEM customers to roll their credits forward on a monthly basis, with an annual true-up.⁵⁵ The Commission should give no weight to arguments for reform that rely on completely unsupported interpretations of Federal law and would undermine decades of Commission policy.

III. RELIANCE ON EXTRA RECORD EVIDENCE IS CAUSE FOR REVERSAL.

Many parties, and in particular TURN, Cal Advocates, and the Joint Recommendations document, lean heavily on extra-record evidence in their opening briefs. These parties make the Commission's job in this proceeding more difficult because the Commission cannot rely on arguments based in extra-record evidence without violating Public Utilities Code Sections 1701.1 and 1757 and the Commission's own Rules of Practice and Procedure.

The Commission's decision must *only* rely on the evidentiary record. Pursuant to Public Utilities Code Section 1701.1, "[t]he commission shall render its decisions based on the law and

CALSSA Reply Brief

13

Sun Edison LLC, 129 FERC ¶ 61,146, 61,620 n. 10 (2009).

Joint IOUs Opening Brief, pp. 9-10.

on the evidence in the record."⁵⁶ Under Section 1757, the Commission must proceed "in the manner required by law" and "on the basis of the entire record."⁵⁷ The findings in the decision of the Commission must be "supported by substantial evidence in light of the whole record."⁵⁸ Under section 1757, courts "apply 'familiar principles to review for substantial evidence.' [and] consider *all relevant evidence in the record*, but it is for the Commission to weigh the preponderance of conflicting evidence . . ."⁵⁹ A court "may reverse the Commission's decision only if, *based on the evidence before the Commission*, no reasonable person could reach the conclusion it did."⁶⁰ These statutory requirements are further enshrined in the Commission's rules, which require it to "render its decision based on the evidence of record."⁶¹

Relying on Cal Advocates, NRDC, TURN, and their allies' loose use of the record in their opening briefs would risk due process challenges. Due process in California requires "notice reasonably calculated, under all the circumstances, to apprise interested parties of the pendency of the action and *afford them an opportunity to present their objections*." The Joint Recommendations and briefs from many of the Pro-Transmission Parties include uncited assertions, new analyses, and entirely new proposals as part of their briefs. No parties have had

Cal. Pub. Util. Code § 1701.1(e)(8). *See also* California Public Utilities Commission Rules of Practice and Procedure, Rule 8.2(m); *The Utility Reform Network v. Public Utilities Comm'n*, 223 Cal. App. 4th 945, 959 (2014) (hearsay evidence is admissible in Commission proceedings, but the Commission cannot base a finding of fact solely upon hearsay evidence where the truth of the extrarecord statements is disputed).

⁵⁷ Cal. Pub. Util. Code § 1757(a)(2).

⁵⁸ Cal. Pub. Util. Code § 1757(a)(3), (a)(4) (emphasis added).

The Utility Reform Network v. Public Utilities Comm'n, 223 Cal. App. 4th 945, 959 (2014) (emphasis added).

⁶⁰ *Id.* (emphasis added).

⁶¹ California Public Utilities Commission Rules of Practice and Procedure, Rule 8.2(m).

Pacific Gas & Electric Co. v. Pub. Util. Comm'n, 237 Cal. App. 4th 812, 859-60 (2015) (quoting Mullane v. Cent. Hanover Bank & Trust Co., 339 U.S. 306, 314 (1950)) (emphasis added). Further details on due process law in California are provided in CALSSA's Opening Brief in Section IV.A.

an opportunity to submit data requests, examine workpapers, cross examine sponsoring witnesses (these facts have no sponsoring witnesses), or rebut the specious claims and faulty modeling underlying the statements described in the following sections. These "facts" *must* be disregarded by the Commission in reaching its final decision.

A. The Joint Recommendations and the Pro-Transmission Parties Present a False Record on Which the Commission Cannot Rely.

The Joint Recommendations and TURN and the rest of the Pro-Transmission Parties' briefs present new, complex proposals, the results of untested modeling runs, and inaccurate attempts to repair factual errors in their expert witnesses' testimony via *legal* briefs. Taking the anathema of attorneys testifying to new heights, these parties' disregard for the Commission's evidentiary process creates a false record upon which the Commission cannot rely in reaching its decision.

It is not possible in the short turn-around between opening and reply briefs to provide an exhaustive list of each of these occurrences in this reply brief. However, one particularly problematic example is the Joint Recommendations' inclusion of an entirely unvetted, last-minute outline of an interim tariff proposal.⁶³ At no point in the evidentiary record has this proposal been fully fleshed out, let alone sufficiently supported.

Another glaring example is TURN's "modified" charts and discussion on pp. 100-103, purportedly showing proposals from SEIA/Vote Solar, CALSSA, and Sierra Club's rebuttal testimony. TURN also states it "corrected the prior erroneous assumption that the base rates discounted by CALSSA include nonbypassable charges." That error undermined *all* of TURN

CALSSA Reply Brief

15

Joint Recommendations, p. 2.

⁶⁴ TURN Opening Brief, pp. 100-103, nn. 285 and 286.

Witness Chait's discussion of CALSSA's proposal,⁶⁵ including the internal rate of return that that TURN continues to cite elsewhere in its brief.⁶⁶

TURN cannot transform a legal brief into surrebuttal testimony as a means to submit new analysis or repair evidentiary shortcoming, especially when *TURN continues to get CALSSA's* proposal wrong. The base rates in CALSSA's proposal do contain nonbypassable charges. In CALSSA's proposal, the rate includes the nonbypassable charges, is then reduced by a percentage, and then nonbypassable charges are subtracted out, resulting in *lower* export compensation than TURN's most recent erroneous interpretation of CALSSA's proposal.⁶⁷ In addition, it is not clear what TURN models for export compensation under CALSSA's alternative glidepath (presented in CALSSA's rebuttal testimony), because it appears to overstate values by more than 100%.⁶⁸ This is a perfect example of why new facts should not be introduced in briefs – TURN gets it wrong, but parties have no opportunity to gain that admission from TURN via discovery or cross examination, to explore workpapers to determine whether TURN's modified tables include further errors, or to present a conclusive analysis in rebuttal or cross examination of the degree to which TURN's advocacy gets the facts wrong.

Other new proposals and factual creations in the Joint Recommendations and the Pro-Transmission Parties' legal briefs include:

⁶⁵ CALSSA Opening Brief, pp. 54-55.

⁶⁶ Compare Exh. TURN-03 at 80:10 and at 85-87, Tables 13-15 to TURN Opening Brief, p. 41, n. 111 (using the same internal rate of return figures discredited during cross examination of Witness Chait).

⁶⁷ 7 Tr. 1134:2-1135:8 (CSA – Heavner and Plaisted).

⁶⁸ TURN Reply Brief, pp. 100-103.

- A ratio of 2:1 as the threshold for the price differential for required TOU rates for new NEM customers;⁶⁹
- New results from TURN's erratic model on the Joint Recommendations' new implementation tariff;⁷⁰
- A new Cal Advocates analysis purporting to show "projected reductions in NEM cost burden"; ⁷¹
- A more extreme, and even less supported, version of a prior dubious assertion related to retroactive charges, now stating "*All* NEM 1.0 and 2.0 customers will have already reached their payback period" within eight years of the date of interconnection;⁷²
- Cal Advocates' uncited and unsupported suggestion regarding California Alternate
 Rates for Energy ("CARE") customers' average annual compensation ranges under
 Cal Advocates' proposal compared to non-CARE customers;⁷³
- The Joint IOUs' citations to legislative analyses that are not in the record;⁷⁴
- The Joint IOUs' citations to a California Energy Commission ("CEC") summary and press release regarding upcoming updates to Title 24 that are not in the record;⁷⁵ and

Joint Recommendations, p. 7 (this proposal is part of the interim tariff); *see also* Cal Advocates Reply Brief, p. 27 (now discussing moving NEM 1.0 and 2.0 customers to a new underlying TOU rate that is nontiered and has at least a 2:1 TOU price differential between summer weekday peak and weekday off-peak periods).

Joint Recommendations, pp. 11-14.

⁷¹ *Id.*, pp. 8-9.

⁷² *Id.*, p. 8 n. 19 (emphasis added).

Cal Advocates Opening Brief, p. 25, nn. 101 and 102.

Joint IOUs Opening Brief, p. 11 n. 30; *id.*, pp. 15-16 nn. 44, 45, 46, 47; *id.*, p. 116 n. 343.

⁷⁵ *Id.*, p. 66 n. 195.

 NRDC's unsupported factual statements regarding cost-effectiveness for new construction under Title 24 requirements.⁷⁶

These are just a handful of examples. Cramming high volumes of unsupported facts into the body of legal briefs is deeply unfair to parties that put their trust in the Commission's rules and evidentiary procedures. The Commission should not condone such advocacy let alone base any decisions on the shadow record it creates.

B. The IOUs' Brief Violates Judge Hymes's Evidentiary Ruling and Then Still Gets the Facts Wrong.

The Joint Utilities filed a motion for judicial notice contending the following, in part: "a) [sic] Sunrun filed the subject Form 10-K with the Securities and Exchange Commission (SEC);

2) Sunrun is a publicly traded company that is required to file such annual reports by the Securities and Exchange Act of 1934; 3) Sunrun is subject to civil and criminal penalties, and civil liability, for any false statements made in Form 10-K."

Judge Hymes granted the motion on August 30, allowing "for notice of Joint Utilities' three propositions including that Sunrun filed the Form 10-K, is required to file such forms, and is subject to penalties for making false statements in the form."

While the August 30, 2021 ruling has some minor discrepancies, *e.g.*, the Joint IOUs included five propositions instead of three, ⁷⁹ Judge Hymes clearly and appropriately limited the

NRDC Opening Brief, p. 24 ("If the PCT for new construction is greater than the Title 24 requirement for distributed generation, then the Successor Tariff will be cost-effective from the perspective of prospective home buyers. Because the costs of solar installation on new construction are lower than costs of retrofitting solar on existing structures, if a Successor Tariff passes the PCT for installation on existing structures, then it also by definition will pass the PCT for new construction").

⁷⁷ R.20-08-020, *Email Ruling Granting Joint Utilities Motion to Take Official Notice* (August 30, 2021).

⁷⁸ *Id*.

Joint IOUs Motion, pp. 3-4.

degree to which the IOUs could use the pages of the 10-K now constituting Exh. IOU-10: "Further, inclusion of the form cannot lead to a more expansive use than proposed by Joint Utilities, as the contents of the Sunrun Form 10-K cannot be used 'for the truth of the matters asserted therein.'" ⁸⁰ The ruling thereby limits use of the document to the three propositions she discusses in the ruling itself. Further confirming this approach, the ruling states very clearly that "taking official notice of Sunrun's Form 10-K would not lead to the establishment of *any* facts." ⁸¹

The Joint IOUs directly violate this ruling by using the 10-K to try to establish "the estimated 35-year useful life represented by a major solar manufacturer." ⁸² The Commission should not tolerate advocacy that directly contravenes an ALJ ruling. Judge Hymes set the limits of the use of this controversial document, and the IOUs' attorneys have scoffed at those limitations.

Beyond this impermissible use, the Joint IOUs still have the facts wrong. First, they describe a company that *does not make solar panels* as a "solar manufacturer" to give more credence to their claims. A cursory review of the 10-K document the IOUs tried repeatedly to get into the record—or descriptions of Sunrun the IOUs must have seen when researching Sunrun's market value for Witness Tierney's testimony⁸³—would have demonstrated this simple fact.

CALSSA Reply Brief

⁸⁰ R.20-08-020, Email Ruling Granting Joint Utilities Motion to Take Official Notice (August 30, 2021).

⁸¹ *Id.* (emphasis added).

Joint IOUs Opening Brief, p. 3 n. 6 and p. 25 n. 79.

Exh. IOU-01 at 47:14 to 48:5.

Second, the Commission has already considered and made findings regarding the facts the IOUs attempt to prove. In D.14-03-041, the Commission found that "a 20-year transition period is consistent with the expected useful life of NEM PV systems as reflected in several contexts, including PPAs and financing agreements." ⁸⁴ Solar systems degrade over time, and while a panel may produce *some* power in its later years that would allow it to still be a depreciable asset for accounting purposes, representations in a 10-K are far different than the service and savings guarantees companies make to their customers, which typically are included in terms of 20 years.

Third, the utilities' claims also fail to take into account non-PV panel components of solar systems, which represent the vast majority of system costs. The IOUs' brief fails to mention the lifetime of inverters, wiring, and other components of the system that may need replacement. To say that a complete PV system will last 35 years is categorically incorrect. The answer of how long a combination of components meets a specific purpose will be different depending on the exact question asked. The IOUs are taking a statement completely out of context and applying it to their own purpose.

However, the IOUs prevent CALSSA, and other parties that are much more knowledgeable than the IOUs about rooftop PV systems, from asserting these counter-claims on the record. The utilities insistence on plowing forward with the very claim Judge Hymes prevented the IOUs from making in the first place creates a due process problem for the Commission: if it relies on the claims in the IOUs' briefs in its final decision it will be relying on evidence no party has had the opportunity to rebut and was specifically prohibited from being considered by Judge Hymes's ruling.

8

D.14-03-041, Finding of Fact 6.

IV. THE JOINT RECOMMENDATIONS MUDDLE THE RECORD.

Perhaps the most perplexing part of the Joint Recommendations is the puzzle left to the Commission to determine exactly what proposal each of these parties now supports. The document mostly amounts to an amalgamation of TURN and Cal Advocates' proposals, with little compromise between the two. While the Joint Recommendations document includes four other organizations, those parties never developed full proposals. At one end of this spectrum are the California Wind Energy Association ("CalWEA") and the Independent Energy Producers Association ("IEPA"), who did not even file direct testimony; in the middle is CUE, whose testimony advocated for a collection of parts of other parties' proposals they liked (in addition to their usual acerbic criticism of the solar industry); 85 and at the other end is NRDC, whose proposal is an outline to be fully fleshed out at some point in the future. 86

A. Surprisingly Little Compromise from Parties That Mostly Agreed in the First Place

Many of the like-minded parties supporting the Joint Recommendations spent much of the proceeding agreeing with each other on high-level concepts.⁸⁷ Lacking a complete solar fee proposal, for example, NRDC asked the Commission's consultant to model Cal Advocates' proposal as its own. ⁸⁸ While these parties tried to reach a settlement, they could not do so, ⁸⁹ and the remaining disagreements on the details of the tariffs manifest themselves in what is excluded

See generally Exh. CUE-01 and CUE-02.

⁸⁶ CALSSA Opening Brief, pp. 212-214.

See, e.g., Exh. PAO-3 at 3-56:6-10 (agreeing with NRDC's "equity fee"); Exh. NRD-01 at 23:7-9 (agreeing with Cal Advocates' storage incentives); See generally Exh. CUE-01 and CUE-02 (supporting many of the components of the other Joint Recommendations' signatories).

⁸⁸ Exh. NRD-01 at 18:11-13.

Cal Advocates Opening Brief, p. 42: "the parties could not reach a settlement agreement"; *See also R.20-08-020: Joint Recommendations by PAO and Other Parties*, E-mail from Wayne Parker to Service List (August 20, 2021).

from the document, in some of the parties opting out from portions of the document, and in the different ranges of values and concepts presented, which belie the lack of true compromise in the areas where they disagreed.

First, the document is largely silent on key successor tariff components. There is no default rate proposal addressing the rates under which customers would be required to take service. It is also completely silent on the market transition credit that NRDC and TURN have called key elements of their proposals.⁹⁰

In the other areas where these parties did not agree, they opted out of a section of the Joint Recommendations altogether. CUE, CalWEA, and TURN do not support section 4 of the Joint Recommendations, which assesses an equity fee on existing customers.⁹¹ IEPA appears to disagree with the idea that parties be required to switch to the successor tariff after eight years.⁹² No explanation is given for these positions in the Joint Recommendations.

For other key tariff concepts, the parties include a range of values running the spectrum from:

- Instantaneous netting to hourly netting;⁹³
- Hourly differentiation of export rates to differentiation based on time-of-use periods;⁹⁴

CALSSA Reply Brief

OALSSA Opening Brief, pp. 116-122 (describing the short-comings in these parties' market transition credit proposals).

Joint Recommendations, p. i.

⁹² *Id.*, p. i, 8.

Id., p. 2. The recommendation is "Instantaneous netting or, if that is not possible, hourly netting ..." The document should have been clear that the reason it may "not be possible" is that SDG&E has stated, "the CIS billing system would require substantial buildout, along with significant changes to SDG&E's Smart Meter Network." (Exh. PAO-01 at 3-75; Exh. ASO-02 at 16).

Joint Recommendations, p. 2.

- Locking in all export rate components to locking in all export rate components except energy avoided costs, which would be left to the real-time market;⁹⁵
- The high fixed solar fees in Cal Advocates' proposal to the IOUs' astronomical fees;⁹⁶ and
- Inclusion in a solar fee of nine nonbypassable charges (five more than those originally in Cal Advocates' testimony) to the "kitchen-sink" nonbypassable charge proposal from TURN. 97

These provisions mostly appear to simply draw lines between the details in TURN and Cal Advocates' proposal rather than compromise on those details. Moreover, it is a puzzle within the document itself to simply determine which part of the Joint Recommendations the parties support, which they do not support, and why. The document does very little to move the proceeding forward and may actually represent a step backward.

B. TURN's Brief Attacks the Joint Recommendations.

Exacerbating the problem, the parties' briefs include advocacy for both their own proposals and the Joint Recommendations, which conflict with each other. This conflict is clearest in TURN's opening brief. Despite suggesting its successor tariff is "fully aligned with the Joint Recommendations," TURN attacks the validity of the Joint Recommendations' export compensation regime and solar fee calculation, including recognition that the fee will overcharge "customers when their generation is not operating or when the customer exports a

⁹⁵ *Id*.

⁹⁶ *Id.*, p. 4.

⁹⁷ *Id.*

TURN Opening Brief, p. 68.

high percentage of total output (either temporarily or generally)." ⁹⁹ TURN's criticisms are a good demonstration of how the signatories to the Joint Recommendations are talking out of both sides of their mouths, with no clarity on what the details of a successor tariff would look like if the Joint Recommendations were adopted.

C. The Signatories Conducted No Outreach to Truly Adverse Parties.

Underscoring the fact that the Joint Recommendations do not represent a compromise that moves the proceeding forward is that the signatories never reached out to parties that oppose both Cal Advocates and TURN's proposals, like CALSSA. The Commission's interest in compromise is embodied in Rule 12.1(b) of the Commission's practice and procedures, which requires that "[p]rior to signing any settlement, the settling parties shall convene at least one conference with notice and opportunity to participate provided to all parties for the purpose of discussing settlements in the proceeding." ¹⁰⁰ While the Joint Recommendations parties never reached a settlement, they did not even attempt to conduct any settlement-like outreach to parties that had not agreed with them throughout the proceeding.

⁹⁹ *Id.*, pp. 11, 12, 74, 79 and 110.

¹⁰⁰ CPUC Rules of Practice and Procedure, Rule 12.1(b).

V. SCOPING RULING ISSUES

- A. Issue 3: What method should the Commission use to analyze the program elements identified in Issue 4 and the resulting proposals, while ensuring the proposals comply with the guiding principles?
 - 1. Sustainable Growth, Cost Recovery Periods and Parties' Modeling
 - a. Cost Recovery Periods

TURN recommends a Market Transition Credit that targets a 10-year discounted payback period, which TURN says equates to a 5-year simple payback period. While CALSSA agrees with TURN that discounted payback is the most appropriate measure, the fact that there is so much difference between the discounted payback period and the simple payback period under TURN's proposal demonstrates how small the customer savings are under the TURN proposal. If customer bill savings are significant, applying inflation and similar factors does not double the payback period. The fact that a 10-year discounted payback equates to a 5-year discounted payback period under TURN's proposal is a weakness, not a strength. The level of customer savings is so marginal that a minor influence can double the payback period. This is particularly a problem since TURN's modeling uses an idealized "baseline" customer cost of solar rather than a real world cost of solar.

CALSSA Reply Brief

25

TURN Opening Brief, p. 37.

Exh. CSA-02 at 9, Table 1. The difference between simple payback and discounted payback under CALSSA's proposal is 1-2 years. Even under the scenarios with lower export rates but no fixed charges the difference is far less than doubling.

⁹ Tr. 1541:9-21 (TURN – Chait). For some customer types the savings are not only marginal but are negative.

Exh. TRN-01 at 25:27-28.

b. Title 24

Cal Advocates presents a vastly distorted picture of the amount of solar capacity that will be built under the Title 24 building standard for single family homes. They use a 2019 average system size for solar on existing homes and apply that average to new homes. Because the standard is designed for solar to offset the average usage of an extremely efficient new home, system size is less than half of the Cal Advocates assumption. This leads the California Energy Commission to conclude that the solar requirement in the 2019 Standard will only increase solar capacity by 1.1% statewide. 107

TURN challenges the Commission's inclusion of Guiding Principle (e) in this proceeding, which seeks to coordinate NEM-3 with Title 24 and other state laws. TURN states, "Had the Legislature wished for the Commission to coordinate the development of the successor tariff to accomplish other state policy goals, or to coordinate with the Energy Commission, these requirements would have been included in the statutory text." This statement is hostile to the Commission's delegated authority to regulate utilities, including creation of tariffs that are in the public interest.

TURN further states, "There is no reason to conclude that changes in NEM tariffs conflict with the Title 24 requirements." In fact, there is ample evidence in the record to make such a conclusion. TURN supports undermining the Title 24 residential solar mandate by

Cal Advocates Opening Brief, p. 33, n. 144.

Exh. SVS-05 at 5.

¹⁰⁷ *Id.* at 4. Also referenced in Exh. IOU-01 at 14, Figure I-4, where the dashed purple line does not increase sharply.

TURN Opening Brief, p. 61.

Id., p. 60.

CALSSA Opening Brief, pp. 40-42; Exh. PAO-07; 7 Tr. 1084:18-1086:5, 1118:6-17 (CSA – Heavner).

making a community solar option available for all new homes, but TURN falsely concludes that any community solar programs would be eligible. TURN's brief states, "the availability of a community solar tariff for new residential construction would satisfy the alternative compliance approach under the Title 24 New Solar Home Program." This ignores the responses to TURN's own questions during hearings, which made clear that the California Energy Commission is tightening the rules for community solar under Title 24 and will not accept any program as an alternative to the mandate for individual homes. Finally, TURN implies that CALSSA's opposition to the community solar program proposed by the Sacramento Municipal Utility District was not sound because CALSSA did not seek judicial review of the CEC decision to approve it. That ignores the response to TURN's question on this very issue at hearings, which made clear that rather than asking the judiciary to intervene, CALSSA successfully pursued changes to the underlying rules at the CEC. 113

The Joint IOUs use the discussion of Title 24 to allege that CALSSA's positions are inconsistent, but the example they use is ludicrous. The IOUs state, "At hearings, Mr. Heavner argued that a benefit to cost ratio of 1.0 from a participant perspective is too narrow a margin upon which the CEC can predicate its Title 24 mandate, yet CALSSA asks the Commission to require non-participating customers to continue to bear costs of the program that do not come close to a 1.0 TRC score, much less RIM." However, the difference between a mandate and a voluntary tariff should be self-evident. Net metering is not a mandate that all Californian's must

-

TURN Opening Brief, p. 123.

¹¹² 7 Tr. 1151:12-24, 1152:23-27 (CSA – Heavner).

¹¹³ 7 Tr. 1151:25-1152:27 (CSA – Heavner).

Joint IOU Opening Brief, p. 99.

install solar. It should surprise nobody that a stricter cost-effectiveness standard is used for a mandate that *all new homes* include solar. This is not a contradiction; it is good public policy.

c. CALSSA Correctly Noted the Post-NEM-2 Decline in Commercial Solar Installations.

Commercial solar installations have declined since NEM-2 was implemented, and the suggestion in the Joint IOUs' Opening Brief that they have disproven that claim, and that Witness Heavner misled Judge Hymes at hearing by persisting "in his incorrect claims," are both untrue. 115

In direct testimony, CALSSA stated the number of "commercial interconnection applications submitted" in California "declined 25% in 2020 compared to the 2018-2019 average across the three IOUs." In the Joint IOUs' rebuttal testimony, the utilities stated that it was incorrect for CALSSA's figures to exclude military and agricultural customers. ¹¹⁷ CALSSA's approach was sound based on the data that was made available by the utilities. ¹¹⁸ Utility interconnection record keeping is surprisingly sloppy, and the Commission should not rely on their statement of no change in the commercial market. ¹¹⁹

Further, the portion of the transcript to which the IOUs cite does not discuss the 25% figure at all. It consists of a question from Judge Hymes noting that "commercial solar installations decreased in 2020," which is true, and stating that "CALSSA proposes to maintain NEM-2 for commercial as well as agricultural customers," while then asking whether CALSSA considered "other proposals for how to increase commercial and agricultural solar and storage

CALSSA Reply Brief

¹¹⁵ *Id.*, pp. 99-100.

Exh. CSA-01 at 18:3-4.

Exh. IOU-02 at 90:11-16.

¹¹⁸ CALSSA Opening Brief, p. 104 n. 524.

¹¹⁹ *Id*.

insulation [sic] uptake."¹²⁰ Mr. Heavner answered the question by stating that real-time, dynamic pricing will be important to showing the value of storage going forward, and that he expects "some years from now that to be the dominant motivator" for storage installation. ¹²¹ Mr. Heavner never even discussed the impacts of NEM-2 on commercial systems. It is the Joint IOUs' brief that seeks to mislead the Commission, not Witness Heavner.

2. Cost-Effectiveness Should Take into Account the Societal Cost Test.

CALSSA agrees with Protect Our Communities Foundation's contention that the

Commission should consider the societal cost test variation of the total resource cost test to
analyze the NEM successor. As that brief highlights, this approach would align with
admissions from some of the Pro-Transmission Parties advocating against the use of the societal
costs test. For example, Cal Advocates conceded societal benefits have a value greater than zero,
and TURN has stated both that the Commission should not ignore societal benefits and that
societal cost is appropriate to quantify societal benefits that would not be calculated in Total
Resource Cost Test. SEIA/Vote Solar point out that there are substantial quantifiable societal
benefits from distributed solar and solar + storage resources, totaling \$3.8 billion per year under
the 2020 Avoided Cost Calculator ("ACC") and \$1.7 billion per year under the 2021 ACC. 124
The Commission can and should take societal values from distributed solar resources into
account.

¹²⁰ 7 Tr. 1216:2-1217:13 (CSA – Heavner and Plaisted).

¹²¹ *Id.*

R.20-08-020, *Opening Brief of the Protect Our Communities Foundation*, pp. 21-26 (August 31, 2021) ("Protect Our Communities Foundation Opening Brief").

¹²³ *Id.*, p. 21.

R.20-08-020, *Opening Brief of the Solar Energy Industries Association and Vote Solar*, pp. 28-32 (August 31, 2021) ("SEIA/Vote Solar Opening Brief").

3. The Pro-Transmission Parties' Flawed Cost Shift Methodology and Other "Cost-Shift" Related Issues.

The Pro-Transmission Parties' Flawed Cost Shift Methodology

The Pro-Transmission Parties' opening briefs continue to make specious claims that NEM represents a massive shift in cost from solar customers to non-solar customers. These claims go further than the NEM-2 Lookback Study, which at one point the IOUs call a "pillar of evidence" that "must be taken seriously and its findings given substantial weight, but criticize it in testimony as only taking inputs from the IOUs' cost-of-service studies without conducting more vetted analysis. 127

Inspection of the workpapers behind the Joint IOUs' cost shift claims, on which other parties rely, reveal five major data manipulations intended to increase the cost shift numbers used: 128

- 1. They use a current number for the previous avoided costs.
- 2. They inflate solar production and do not include solar degradation.
- 3. They do not consider later year benefits.
- 4. They consider self-generation to be a cost to the utilities attributable to NEM.
- 5. They fail to include a sensitivity for added costs from complete decarbonization.

On the first point, PG&E takes the 2019 avoided cost from the ACC and applies it to 2016-2018; while SCE and SDG&E use the 2020 ACC values for 2016-2019. This

Joint IOUs Opening Brief, p. 2; Cal Advocates Opening Brief, pp. 6-8; TURN Opening Brief, pp. 14-17; NRDC Opening Brief, pp. 5-15.

Joint IOUs Opening Brief, p. 22.

Exh. IOU-02 at 86:15-19 ("Verdant's cost-of-service methodology (while informed by the IOUs' GRC Phase 2 cost-of-service studies) is not as vetted [as the standard practice manuals].").

Exh. CSA-02 at 34:6-13.

Id. at 34:6-15-25 and Attachment 16 (citing to the IOU workpapers: "PGE Cost Shift Model, Opening Testimony.xlsx"; "R2008020 - SCE-Chapter 3-01 - NEM Cost Shift Calculation.xlsx"; "R2008020 - SDGE-Chapter 3-01 - NEM Cost Shift Calculation.xlsx").

undervalues solar, because: a) previous years had higher avoided cost values in mid-afternoon hours; b) the value of new distributed renewables was higher; c) gas costs were higher; and d) costs for utility-scale renewables were higher. For example, the 2013 NEM cost effectiveness analysis performed by E3 found that 2012 levelized avoided costs were 11-13 cents/kWh. This is far higher than the 3.9-5.3 cents/kWh used by the IOUs for 2016. As SEIA points out in direct testimony, the state could not have avoided a certain level of above-market costs, even if utility-scale RPS generation had been built instead of distributed solar. For the utilities to use current avoided cost values and apply them to previous solar adoption is a manipulation of data that amplifies their measured cost of net metering.

On the second point, PG&E has agreed that a 17.1% capacity factor is the average for actual operation of existing systems. Despite this, in their cost shift calculations, they use capacity factors of 19.5% for residential systems and 19.8% for commercial systems. Generally, capacity factors for commercial systems are lower because they are often installed on flat roofs and need to have less tilt due to the potential for wind to overstress roof attachments. The higher value for commercial systems is therefore puzzling, but more importantly the inflated

Id. at 34:15-25.

Id. (Citing to California Net Energy Metering Ratepayer Impacts Evaluation, p. 59, Table 23, E3 (October 2013), available at https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_website/content/utilities_and_industries/energy/reports_and_white_pape rs/nemreportwithappendices.pdf.).

¹³² *Id.*: Exh. SVS-01 at Attachment RTB-4.

Exh. CSA-02 at 34:15-25.

¹³⁴ *Id.* at 35:1-8 (citing to PG&E Advice Letter 5938-E, pp. 8-10).

¹³⁵ *Id.*

¹³⁶ *Id.*

values for both commercial and residential systems is a manipulation that makes it appear that there is more solar generation on the system than there actually is. 137

On the third point, measuring the single-year costs and benefits is not as useful as measuring the lifetime costs and benefits.¹³⁸ The latter can be achieved by using levelized ACC values rather than non-levelized values. ¹³⁹ This would produce numbers that represent the costs and benefits in an average year. In contrast, the IOUs measure only one year with the implication that it is representative of all years. ¹⁴⁰

On the fourth point, net metering is a tariff that gives credits for exports to the grid and should be measured as such. 141 Customers do not have an obligation to obtain their electricity through purchases from the utility, and calculating cost-benefit to include self-generation inadvertently captures generation to supply new load (e.g., if a customer purchases an electric vehicle and installs solar and storage to fuel the vehicle, it is not replacing utility sales that previously occurred). 142 This makes the all-generation approach to cost-benefit inaccurate even if the objective is to count utility lost revenue as a cost to non-participating customers. 143 Selfgeneration will exist with or without net metering.¹⁴⁴ NEM should be evaluated based on exports to the grid.¹⁴⁵

Id.

¹³⁸ Id. at 35:9-16.

¹³⁹ Id.

¹⁴⁰ Id.

¹⁴¹ Id. at 35:17-26.

¹⁴² Id.

¹⁴³ Id.

Id.

¹⁴⁵ Id.

On the fifth point, a recent study that reviewed value of solar methodologies found avoided transmission to be among the most important factors. ¹⁴⁶ The study states:

After the sensitivity analysis of each VOS component, the main VOS value has been studied to find out how the impact of different components compare to one another and which components have more variability. Fig. 10 shows that the VOS is, in decreasing order, sensitive to the avoided environmental cost (V8), avoided health liability cost (V9), avoided transmission capacity cost (V6), avoided fuel cost (V3), avoided distribution capacity cost (V7), avoided O&M variable cost (V2), avoided reserve capacity cost (V5), avoided O&M fixed cost (V1), and avoided generation capacity cost (V4). 147

Therefore, when long-term transmission needs to meet the goal of complete decarbonization have been studied, the increased avoided transmission value can have a major impact on the value of solar. ¹⁴⁸

An additional shortcoming of the IOU cost shift methodology is that it fails to recognize that rate structure is evolving toward more cost-based rates.¹⁴⁹

The Impact of Long-Term Transmission Savings

Protect Our Communities Foundation's Opening Brief also recognizes the shortcomings in the IOUs' and other parties' measures of "cost shifts" in light of long-term transmission savings. They point out that the "Lookback Study calculates that residential NEM customers were paying \$618.6 million less than the cost to serve them that year." While CALSSA disagrees with this conclusion because the Lookback Study underestimates the values solar

CALSSA Reply Brief

Id. at 35:27-36:9.

Id. at 35:27-36:9 and Attachment 10 (citing to Koami Soulemane Hayibo and Joshua M. Pearce, *A review of the value of solar methodology with a case study of the U. S. VOS*).

Exh. CSA-02 at 35:27-36:9.

Exh. CSA-01 at 109:20-110:11.

Protect Our Communities Foundation Opening Brief, p. 8.

provides,¹⁵¹ taking the Lookback Study at face value shows that "when non-residential and residential customers are considered together, the Lookback Study shows that the costs shifted by NEM customers equal \$501.1 million—far less than the \$3.4 billion claimed by various parties." ¹⁵² If the full accounting of transmission values were included, it would eliminate any gap. ¹⁵³

The Pro-Transmission Parties' Double Standard for Energy Efficiency Customers

Protect Our Communities and SEIA/Vote Solar's Opening Briefs point out the double-standard the Pro-Transmission Parties apply to energy efficiency customers. TURN's witness Chait acknowledged the double-standard the Pro-Transmission Parties have propagated with their cost-shift claims, admitting the energy efficiency programs and, really, any decrease in load, would constitute a cost shift under the Pro-Transmission Parties' definitions. Likewise, Cal Advocates claims that energy conservation efforts should be treated differently from self-consuming solar because utility forecasts account for energy conservation when making procurement decisions, but the same Cal Advocates witness later admitted the utilities include distributed energy resource ("DER") solar growth when they project future load. 155

See CALSSA Opening Brief, pp. 17-18.

Protect Our Communities Foundation Opening Brief, p. 8.

¹⁵³ *Id*.

¹⁵⁴ *Id.*, pp. 24-25 (citing to 9 Tr. 1614:20-1615:7 (TURN – Chait), which states:

[&]quot;Q: . . . is it your view that when bill savings increase, if everything else is held equal, the cost shift increases?

A. For energy efficiency, yes, because your throughput is declining, and that is one of the reasons why California's retail rates are relatively high compared to other states because we have many decades of energy efficiency.").

Id., p. 26 (citing to 12 Tr. 2071:17-22 (Cal Advocates – Gutierrez); id. at 2088:6-12 ("Q: So when utilities project . . . future load, do they take into account projected . . . behind-the-meter solar system[s]? . . [A (Mr. Gutierrez):] Yes, typically, they do include . . . BTM PV growth in their sales forecast.")).

SEIA/Vote Solar point out that the IOUs' assertions rely on the application of the Ratepayer Impact Measurement ("RIM") test to energy efficiency customers, but "[t]he RIM test is not used in California, or virtually any other state, to assess the cost-effectiveness of energy efficiency (EE) programs." The only real difference between energy efficiency customers and NEM customers "is that energy efficiency customers are not castigated" for the alleged cost shifts they cause, "even though they have similar impacts on the grid." 157

Other Cost-Shift Issues

Other "cost-shift" issues raised in parties' briefs include:

- Cal Advocates has exaggerated the implications of the cost shift on lower income
 customers, as these customers are actually bearing a relatively small percentage of the
 costs that anti-NEM parties claim are being shifted.¹⁵⁸
- TURN incorrectly states, "the export-only RIM test cannot compare tariff alternatives that include various levels of fixed charges or grid benefits charges because it does not assess the impact of self-consumption."¹⁵⁹ While it is true that solar fees targeting self-generation are not included in an export-only RIM, fixed charges in rates can be evaluated. Because CALSSA's proposal does not include solar fees based on self-

CALSSA Reply Brief

SEIA/Vote Solar Opening Brief, pp. 25-26.

¹⁵⁷ *Id. See also* Exh. ASO-02 at 15:3-18 (concluding, based on an NRDC report, that "[t]he amount of behind-the-meter energy offset by energy efficiency programs from 2010-2016 is nearly the same as the amount of behind-the-meter energy offset by all solar installed up to 2016").

Protect Our Communities Foundation Opening Brief, pp. 41-42 (concluding "approximately 92% of the cost shift that the Joint Utilities claim is occurring is being borne by non-CARE customers" based on calculations supported by record evidence).

TURN Opening Brief, p. 32.

¹⁶⁰ 7 Tr. 1162:18-1164:4 (CSA – Heavner).

generation, use of the export-only RIM incorporates all aspects of the CALSSA proposal.

4. Cal Advocates Proposal Does Not Aid Electrification.

Cal Advocates makes a false claim that its proposal "provides NEM customers an opportunity to reduce their combined gas and electric bills if the increased electricity consumption is due to switching from gas to electric appliances or purchasing an electric vehicle." This statement involves a deeply distorted calculation. It is not well explained, and does not have record support, but the logic can be pieced together from language in Cal Advocates's brief and testimony.

The brief states, "Under Cal Advocates' proposal, the price of additional self-consumption of PV generation is the exports compensation rate plus the non-bypassable charges ("NBC") portion of the grid benefits charge, because NBCs are assessed based on a customer's total self-consumption of PV (kWh) during each billing cycle." The theory seems to be that the only impact of increasing load is to move solar-generated kWh from exports to self-consumption. Because the customer is no longer getting approximately 6 cents/kWh in export compensation for each kWh consumed and pays approximately 2 cents/kWh in NBC fees for additional self-generation, Cal Advocates claims that the total cost to the customer "typically totals 6-9 cents/kWh." However, this assumes that 100% of the increased load would met by solar generation that otherwise would have been exported. That is not a real scenario. There are many hours when a new electrical appliance will be operating and a solar system will not be

Cal Advocates Opening Brief, p. 15.

Id., p. 15 n. 48.

¹⁶³ *Id.*, p. 15 n. 49.

exporting. The real impact of electrification is that customers will either buy more electricity from the utility or pay for larger solar systems.

This scenario also demonstrates that because exports have such low value under the Cal Advocates proposal, customers are likely to minimize exports by installing smaller solar systems. With smaller solar systems, customers may be more reluctant to increase load with new electrical appliances, which would negatively impact state goals for electrification. Instead, the Commission should ensure that there is enough value for installing solar that customers are encouraged to install extra solar capacity to generate the power needed for additional electrical appliances.

While Cal Advocates sandbagged inclusion of this scenario in a legal brief prevents parties from directly rebutting their assertions on the record, the impact of Cal Advocates' proposal on electrification is shown in Aurora Solar's direct testimony. In Aurora's payback analysis, all of the scenarios with EVs have longer paybacks than the corresponding scenarios without EVs.¹⁶⁴ No party challenged the accuracy of these measured payback periods.

5. Cal Advocates' Rate Escalation Assumptions Contradict Their Own Data and the Commission's Analysis.

Cal Advocates makes a statement that RPS costs will continue to decline, which will increase the relative cost of net metering.¹⁶⁵ However, Cal Advocates' own data supporting this statement shows that the cost of large-scale renewables has started to increase.¹⁶⁶

CALSSA Reply Brief

Exh. ASO-01 at 12, Figure 2.

Cal Advocates Opening Brief, p. 36.

¹⁶⁶ Id. See also Exh. SVS-03 at Attachment RTB-4, p. 3 (Figure 3).

Cal Advocates goes on to state erroneously, "The Commission forecasts that the average residential retail rates of energy will continue to increase at a rate of about 4% per year." As a source for this statement, Cal Advocates references D.20-08-001. That decision established requirements for the solar savings estimates that solar contractors provide to consumers, with the purpose of ensuring that the estimates do not use faulty data to overstate savings. It did not make any forecast of future rate increases. Rather, it found that historic rate increases have been 3.1%. To allow for fluctuations over time and for simplicity, the modified staff proposal rounds this figure upward to four percent." Finally, the decision requires contractors to provide a savings estimate that assumes rate escalation of no more than 4%. To

An actual forecast of rate escalation from the Commission can be found in the whitepaper created for the July 22, 2021 rates *en banc*. That paper predicted that residential rate escalation from 2022-2030 will be 2.4% for PG&E, 0.8% for SCE, and 3.8% for SDG&E.¹⁷² Factoring out inflation, the Commission predicts that only SDG&E will experience a significant rate increase during that eight-year period, with PG&E's rates staying flat and SCE's rates *decreasing*.¹⁷³

_

Cal Advocates Opening Brief, p. 37.

Id., p. 37 n. 156.

D.20-08-001, p. 17.

¹⁷⁰ *Id*.

¹⁷¹ *Id.*, p. 18.

Exh. PCF-35 at 49, Table 16.

Exh. SVS-04 at 30, Figure 26.

B. Issue 4: What program elements or specific features should the Commission include in a successor to the current net energy metering tariff?

1. Low- and Moderate-Income Residential Customers and Equity Considerations

Statutory law, the guiding principles, and the Commission's policy priorities all highlight the key importance of addressing equity considerations and promoting growth of distributed generation among lower-income and disadvantaged communities ("DACs").¹⁷⁴ Yet many parties have failed to provide meaningful proposals to support these goals, and instead have proposed changes to net metering that raise new barriers and interfere with realizing greater equity in California's energy transition, with little support for low-income customers and residents of DACs.¹⁷⁵ CALSSA's Opening Brief discussed those proposals' infirmities, the importance of policy support to continue and accelerate positive trends in solar adoption among lower-income customers and disadvantaged communities, and CALSSA's proposals to achieve that end—the most beneficial set of equity-focused proposals in this proceeding.¹⁷⁶ None of the Pro-Transmission Parties' opening briefs raise valid objections to the points CALSSA made, and they do not merit further response beyond CALSSA's Opening Brief.

The Joint IOUs' opening brief discusses their proposal for a pilot program called Savings Through Ongoing Renewable Energy, or STORE.¹⁷⁷ The proposal is not fully developed, with details deferred to the future.¹⁷⁸ The Joint IOUs suggest that details can be developed through

Cal. Pub. Util. Code § 2827.1(b)(1); D.21-02-007, Ordering Paragraph 1(b); Exh. CSA-35 at 9-10 ("To fulfill its mission, the Commission must focus on communities that have been underserved."); *id.* at 11 (referring to California programs to enable ESJ communities to access clean energy through solar).

See, e.g., Exh. PAO-03 at 1-6:7 to 1-7:2; Exh. IOU-01 at 17:6 to 18:16; Exh. NRD-01 at 14-15, Table 2; Exh. TRN-01 at 5:6-8.

¹⁷⁶ CALSSA Opening Brief, pp. 55-86; Exh. CSA-01 at 32:5-9.

Joint IOU Opening Brief, pp. 76-78.

Exh. CSA-02 at 32:2-22.

workshops in which stakeholders would "advise on principles" for the program and the IOUs would then determine details of the program and file an Advice Letter. The program elements yet to be developed include how batteries would be deployed, when and under what circumstances the utilities would dispatch customer batteries, when and under what circumstances the utilities would dispatch customer batteries, when any to prioritize customers to receive batteries, and how much of the cost of electrical upgrades the program would cover. These are major, contentious issues, so the IOUs' proposed process of taking input through workshops and creating a program themselves is unworkable. For program development to work, the Commission would need to lay out very specific rules in this decision or issue a later ruling with full opportunity for stakeholders to submit written comments. Because the record does not include enough information to form a foundation for program rules and guidelines, the Commission cannot issue an order with sufficient detail at this time.

2. CALSSA's Export Compensation Approach Is Sound.

TURN expresses concern that CALSSA's proposal for export compensation is based on avoided costs with a 25-year levelization period when the proposed term of the tariff is 20 years. This does not represent an inconsistency. Twenty-five years is a reasonable approximation of how long a customer can be expected to use a solar system. When it is installed, the Commission can expect it will deliver benefits throughout that 25-year period. If

CALSSA Reply Brief

Joint IOU Opening Brief, p. 77; Exh. IOU-01 at 170:16-17.

Exh. IOU-01 at 173:24 to 174:5.

Id. at 165:3-6, 174:19-24.

¹⁸² *Id.* at 177:1-6.

¹⁸³ *Id.* at 174:10-12.

TURN Opening Brief, p. 104.

the tariff only guarantees a certain net metering structure for the first 20 years, that does not mean the following five years do not exist.

TURN refers to the ACC as "the Commission's best estimate of avoided costs" at the time of the ACC update. This is true for the avoided costs in that single year as well as the avoided costs in future years. Later TURN refers to estimates of avoided costs beyond 10 years as "speculative and less reliable." This dismissal of value beyond 10 years is unwarranted. One reason avoided costs go up over time is because the Avoided Cost Calculator correctly has different methodologies for calculating near term and later term avoided capacity costs. Is In the near term, costs are only avoidable if a specific, planned project can be deferred. In the longer term, a much broader set of costs that would occur in the absence of DERs is considered. A project does not need to be "deferred" if it is not planned in the first place because the load growth never happened, and DERs should get the credit for the load growth that they offset. If anything, the ability to actually defer a planned project in the short term is more speculative and the longer term cost avoidance is more certain. The Commission should use its "best estimate" of avoided costs in both the short and long terms by employing levelized values from the ACC.

TURN compares the internal rate of return for stock market investments to DER investments, suggesting the latter are safer investments and do not warrant similar rates of return. TURN and the Joint Recommendations undermine TURN's own argument by attacking the NEM-1 and NEM-2 customers' investments through retroactive, solar-specific fees

¹⁸⁵ *Id.*, p. 73.

¹⁸⁶ *Id.*, p. 76.

Exh. PCF-76 at 15-16.

¹⁸⁸ *Id*.

TURN Opening Brief, pp. 40-41.

and proposals to put these customers on high fixed charges. If this proceeding has demonstrated one fact, it is that no customer's investment in distributed solar is safe as long as TURN and other ratepayer advocates continue their crusade against one specific group of ratepayers. Like any investment, expected returns reflect the level of risk, and the advocacy of Cal Advocates and TURN in this proceeding is therefore pushing up costs for customers and reducing greenhouse gas mitigation.

3. CALSSA's Glidepath Proposal Is Essential and Correct.

As recognized by E3, if the Commission is to preserve a viable distributed generation market, it will need to establish a glidepath. ¹⁹⁰ Instead of a glidepath, TURN proposes a market transition credit that would require an additional phase of this proceeding to determine a methodology for calculating "assumed installed generation cost, forecasted bill savings, discount rate, tax benefits and incentives, finance costs, and other key variables." ¹⁹¹ TURN does not expect this work can be completed before January 2024. ¹⁹² In other words, at a time when stakeholders should be focused on putting DERs to work for specific grid needs through tariffs and programs such as real time pricing and load flexibility programs, TURN would have the Commission spend the next two years refereeing an ongoing debate about net metering.

It is also surprising that TURN's mechanism for making costs approximately equal to benefits is by nearly eliminating customer bill savings and writing a check to customers for most of the upfront costs. In evaluating the TURN proposal, E3 employed an accounting gimmick to

CALSSA Reply Brief

See SEIA/Vote Solar Opening Brief, p. 37.

TURN Opening Brief, p. 129.

¹⁹² *Id.*, p. 130.

amortize the cost of the MTC over 20 years even though it would actually be paid out in the first year. 193 The result is grossly inaccurate cost-benefit results of the TURN proposal.

TURN plays with numbers to attack CALSSA's glidepath. They add 2013-2015 as representative data for current solar adoption rates even though CALSSA was clear in its data response, in testimony, and at hearings that its proposal is based on 2016-2020, which experienced very steady adoption rates. TURN incorrectly states that the annual expected residential adoption in the CALSSA proposal is a range of 800-850 MW, which they derive by taking the 795 MW per year value and wondering if eight years of this adoption rate should be squeezed into seven years. 195

Setting these obfuscations aside, the proposal is clear with or without the numbers in Table 5 of CALSSA's Direct Testimony. The proposal is for each step to be based on twice the annual solar adoption rate from recent years. CALSSA does not have a strong preference whether the thresholds are based on historic adoption for residential customers or for the total market. Exact values can be worked out in an advice letter based on data in the California Distributed Generation Statistics database. The proposal also includes storage adoption thresholds as explained in direct testimony.

Exh. CSA-02 at 41:1-7.

TURN Opening Brief, p. 45; Exh. TRN-06 at 1; Exh. CSA-01 at 39:13-14; 7 Tr. 1125:26-1126:2 (CSA – Heavner).

¹⁹⁵ TURN Opening Brief, p. 44 n. 119.

Exh. CSA-01 at 39:13-14.

¹⁹⁷ 7 Tr. 1126:16-22 (CSA – Heavner).

¹⁹⁸ Exh. TRN-06 at 2.

Exh. CSA-01 at 39:15-17.

TURN also misunderstands CALSSA's alternative glidepath option. The extra record evidence in the charts at p. 101 shows export compensation labeled as CALSSA Rebuttal that is roughly twice the value of the ACC. The whole point of the alternative glidepath is that the 2030 level is the same as rates based on the ACC. The Commission will decide how export compensation should be linked to ACC values. Whatever that decision is, that is the value for 2030.²⁰⁰

TURN states, "the material changes to these later year values in the 2021 ACC update demonstrate the challenges of relying on (and levelizing) one iteration of long-term ACC values for purposes of export compensation." That is the elegance of the alternative glidepath. The Commission does not need to decide on exact values from the 2021 ACC. It can let the ACC settle down in the coming years before it determines the final step of the glidepath, and the glidepath will be self-calibrating with each step.

TURN also takes issue with CALSSA's proposal to base the glidepath steps on historic adoption rates rather than basing it on the Integrated Resources Planning ("IRP") process.²⁰² However, projections of future solar adoption in existing IRP modeling are consistent with historic adoption rates.²⁰³ TURN's recommendation is for new IRP modeling that treats behind-the-meter technologies as a candidate resource and uses the tariff structure adopted in this proceeding.²⁰⁴ The Commission would then come back to this proceeding to set thresholds for a

The Commission will decide on a levelization period and whether compensation rates should be straight from the calculator or derived from ACC values. The end point of the alternative glidepath is equivalent to the result of those decisions. 9 Tr. 1155:24-1156:1; CALSSA Opening Brief, p. vii.

TURN Opening Brief, p. 105.

Id., p. 46.

²⁰³ Exh. SCL-01 at 28:19-20.

TURN Opening Brief, p. 46.

glidepath. That is a non-sensical process because the glidepath triggers are needed now. The NEM-3 decision will uphold Guiding Principle (e) if the target DER adoption rate is generally aligned with the existing analysis in the IRP.

4. Solar Fees and Rate Requirements

As Sierra Club and Protect Our Communities Foundation pointed out in their opening briefs, the solar fees proposed by the Pro-Transmission Parties will result in some customers being overcharged if they consume less of their generation on site.²⁰⁵ Solar fees disincentivize the installation of other measures to control onsite usage such as energy efficiency "because the customer cannot control the average of self-consumption rate of all successor tariff customers."²⁰⁶ Because these fixed charges would be the same for each customer with a similarly-sized system, "they would take a larger share of household income or total expenditures from lower-income customers than from higher-income customers."²⁰⁷ As demonstrated in detail in CALSSA's Opening Brief, recovering these costs through a fixed charge when they are typically recovered through volumetric rates for other residential customers is bad policy and conflicts with State and Federal law and policy.²⁰⁸

a. There is No Cost-of-Service Basis for Solar Fees on the Record.

TURN's Opening Brief misrepresents CALSSA's position to suggest CALSSA is asking the Commission to carve out special treatment for DER customers to avoid paying for programs.²⁰⁹ That is not true. CALSSA's position is that DER customers should pay for the

R.20-08-020, Sierra Club Opening Brief, p. 33 (August 31, 2021) ("Sierra Club Opening Brief").

Id.

Protect Our Communities Foundation Opening Brief, p. 54.

²⁰⁸ CALSSA Opening Brief, Section III.C.5.

TURN Opening Brief, pp. 81-82.

costs they cause. TURN and the other Pro-Transmission Parties' solar fees are premised on the purported lost revenues associated with self-generation, *i.e.*, a group of customers paying less to support the utility's revenue requirements.²¹⁰ They are based on arguments lamenting the fact that these customers no longer purchase as much electricity from the utility as they did before they installed solar.²¹¹

²¹⁰ Fxh CSA-01 at 97:1

Exh. CSA-01 at 97:13-15 n. 166 (citing Joint IOUs Proposal, p. 19 ("To eliminate this type of cost avoidance, the Joint IOUs propose to assess a \$/kW-month Grid Benefits Charge based on a customer's installed solar system size . . . A Grid Benefits Charge is necessary alongside value-based export compensation and default cost-based retail rates because -- as more customers adopt solar-paired storage systems over standalone solar systems -- the amount of self-generation they export will decrease. If the DG-ST were only to adopt a change in export compensation, California would see a significant cost shift in the future from solar-paired storage customers") (emphasis added); CalAdvocates Proposal, pp. 33 ("The utility, however, still incurs these costs to serve its customers, including NEM customers, and must recover its Commission-approved revenue requirement. Any costs to serve NEM customers that are not collected from NEM customers are instead recovered from non-participants, directly increasing non-participants' costs . . . As on-site generation grows, the cost burden of maintaining, repairing, upgrading, and ensuring the safety and reliability of the distribution and transmission systems will compound the cost burden to non-NEM customers."); TURN Proposal, p. 13 ("This charge is designed to recover the amount of non-generation costs that would be paid by the participating customer but for the operation of the BTM resource")).

See Exh. IOU-01 at 139:10 to 141:2; Exh. IOU-02 at 58:10 to 60:19; Exh. PAO-03 at 3-25:3 to 3-29:16; Exh. TRN-01 at 48:18-19; Exh. NRD-01 at 18:4-5; Exh. NRD-01 at 10:22-23. See also Exh. CSA-01 at 96 n. 161 (noting how the Pro-Transmission Parties instead attempt to justify the charges based on the contention that NEM customers are unfairly avoiding certain costs that are incurred on behalf of all customers. See, e.g., Joint IOUs Proposal, p. 19 ("To eliminate this type of cost avoidance, the Joint IOUs propose to assess a \$/kW-month Grid Benefits Charge based on a customer's installed solar system size.") (emphasis added); CalAdvocates Proposal, p. 32 ("The Grid Benefits Charge should be assessed as a \$/kW charge per month, based on the size (kW) of the generation system a customer installs, to properly collect the aforementioned distribution, transmission and public program costs that such customers benefit from . . . The costs above marginal costs include costs to maintain, replace, and upgrade capacity are a critical part of cost of service for all ratepayers and are not affected by customers' consumption or generation decisions."); CalAdvocates Proposal, p. 39 ("in order to achieve financial indifference between NEM and non-NEM participants, NEM participants should not be allowed to avoid paying these costs"); NRDC Proposal, p. 14 ("The NEM 3.0 tariff should include a demand related charge - a grid benefit charge (GBC) - for new NEM customers to recoup a fair share of distribution charges . . . An estimate of the costs to serve a NEM customer, absent the value of electricity generation, should account for both the grid investments already made by the utility with consideration for the NEM customer and the benefits of avoided future investments that the NEM customer may provide in excess of those already accounted for in the avoided costs"); TURN Proposal, p. 13 ("TURN also proposes a separate monthly charge to recover Nonbypassable, Unavoidable and Shared (NUS) costs associated with self-consumption of output provided by BTM resources. This charge is designed to recover the amount of non-generation costs that would be paid by the participating customer but for the operation of the BTM resource")).

For the residential class, the Commission collects demand-related costs through a \$/kWh charge for each kilowatt-hour of customer usage. ²¹² Thus, residential customers pay for whatever demand-related costs they impose based only on how much electricity they use during the month. ²¹³ No cost-of-service study has been approved by this Commission that studies NEM customers as a separate group and concludes they are not covering their cost of service. ²¹⁴

A key problem with TURN and the other Pro-Transmission Parties' fees is the fact they attempt to claw back avoided delivery, *i.e.*, transmission and distribution, charges based on an assessment of the amount of self-consumed energy, *i.e.*, energy that *never* crosses over to the utility's side of the meter.²¹⁵ Customers should not pay for the delivery of energy that was never delivered. Buying less energy should be encouraged.

The Joint IOUs unsuccessfully try to make a corollary argument to TURN's in their Opening Brief and testimony,²¹⁶ stating that exported energy causes costs that are never recovered: "the grid is built to support those customers when their systems are not sufficient to serve load, or when excess generation is flowing back to the grid."²¹⁷ Of course, customers pay for the energy they use when their systems are not sufficient to serve load by paying their volumetric rate. ²¹⁸ With regard to exported energy, SEIA witness Beach explained: "the utility is fully compensated for that delivery service by the neighbor who runs [sic] their meters forward in consuming the exported solar power. For exported power, it is not the solar customer that is

Exh. CSA-01 at 98:4-13.

²¹³ *Id*.

CALSSA Opening Brief, pp. 123-142.

²¹⁵ 3 Tr. 475:19-22 (IOU – Morien); Exh. CSA-01 at 92:11-12.

Joint IOUs Opening Brief, pp. 69-71.

Exh. IOU-02 at 37:12-13.

SEIA/Vote Solar Opening Brief, p. 59.

using the utility grid; instead, the grid is being used by the neighbor that is consuming that exported power."²¹⁹ Put another way, the "non-solar" neighbor consumes clean electrons from their solar neighbor, while the utility is paid the full retail rate despite only transmitting the exported electrons the short distance between neighboring buildings.

b. Neither "Ratepayer Indifference" Nor the PCIA Can Be Applied to NEM Customers.

CALSSA opposes the application of any solar fee to NEM customers, increasing the current scope of nonbypassable charges collected from NEM customers, and modifying the current net basis on which such charges are collected. ²²⁰ However, TURN and the Joint Recommendations propose including one particularly problematic nonbypassable charge in the solar fee, the PCIA, ²²¹ that requires further attention because the Legislature acted specifically to avoid its application to NEM customers.

"Indifference" is a loaded term in California ratemaking, and the mechanism most often employed to achieve it in the context of generation is the PCIA.²²² The PCIA is most notoriously applied to customers that take generation service from community choice aggregators ("CCAs") and electric service providers ("ESPs"). ²²³ The PCIA recovers the above-market costs of significant portions of the utilities' generation portfolios, such as early Renewable Portfolio Standard contracts and utility-owned generation like nuclear and small hydro units, and varies by vintage based on the generation resources included in that vintage.²²⁴

CALSSA Reply Brief

Exh. SVS-03 at 69:9-13; SEIA/Vote Solar Opening Brief, pp. 59-61.

Exh. CSA-01 at 90:4-105:11; CALSSA Opening Brief, Section III.C.5.

TURN Opening Brief, pp. 78-80; Joint Recommendations, pp. 4-5.

Exh. CSA-01 at 100:20-101:5.

Id.

Exh. CSA-01 at Attachment 4 (Joint IOUs Response to CALSSA DR 4.06(b)).

The Legislature adopted this concept of ratepayer indifference in the context of policies surrounding departed load. In 2002, the Legislature passed AB 117, which created a pathway for community choice aggregation by authorizing local governments to aggregate the electrical load of interested electricity consumers within its boundaries.²²⁵ In so doing, the Legislature specifically required that a cost-recovery mechanism be imposed on customers of the CCA "to prevent shifting of costs."²²⁶

The Legislature that deliberated over AB 327 was aware of this concept of "ratepayer indifference," but deliberately chose <u>not</u> to include such a requirement in the statute. The Legislature removed language from the draft bill that directed the Commission to "preserve nonparticipant ratepayer indifference," reflecting a clear legislative intent to remove this concept from the statute in favor of a set of requirements that aims to balance cost-effectiveness concerns and other key statutory goals. Approving a successor tariff that includes the PCIA would be inconsistent with both the plain text of AB 327 and with the statute's clear legislative intent, evidenced by the bill's legislative history.

Aside from the clear legislative direction to adhere to the ratepayer indifference concept that exists in AB 117 and elsewhere—which does not exist in AB 327—this context of departed load policy differs significantly from that of distributed solar policy.²²⁹ Solar customers are not departing load customers in the same sense as ESP or CCA customers, as they continue to

²²⁵ AB 117 (2002) (adding Cal. Pub. Util Code § 366.2).

²²⁶ AB 117 (2002) (adding Cal. Pub. Util. Code § 366.2(c)(5)).

See Exh. CSA-01 at Attachment 8.

²²⁸ CALSSA Opening Brief, pp. 10-13.

Exh. CSA-01 at 102:17-103:11.

purchase generation from the utilities. ²³⁰ PG&E admitted as much in its Phase I General Rate Case, A.18-12-009, in the context of its ill-fated non-bypassable charge for hydroelectric resources. ²³¹ There, its witness acknowledged that solar customers are distinguishable from CCA customers and others that pay the PCIA in that they still receive generation service from PG&E. ²³² This is especially true of the vast majority of NEM customers, who do not "zero out" their bills. ²³³

Lastly, both TURN's proposal and the Joint Recommendations are half-baked on this issue. ²³⁴ They do not explain whether and how solar customers would be vintaged for purposes of paying the PCIA, ²³⁵ and they do not explain how to resolve conflicts for departed NEM customers that will arise between PCIA vintaging for installing a solar system and PCIA vintaging for becoming a CCA customer. ²³⁶

TURN's Opening Brief also makes clear that we do not know the full impacts of these proposals on the economics of solar investments. TURN states that the financial impact on customers of *existing* nonbypassable charges is probably understated because "[e]xcluded from this list are a series of pending, proposed or recently approved securitization charges for IOU wildfire costs and other undercollections."²³⁷ That is, TURN and the Joint Recommendations do

²³⁰ *Id*.

²³¹ *Id*.

²³² *Id.* at Attachment 14 (excerpt from A.18-12-009, 19 Tr. 2193:2-12 (PG&E – Maggard)).

Id. at 102:17-103:11.

²³⁴ *Id*.

²³⁵ *Id*.

²³⁶ *Id.*

TURN Opening Brief, p. 111.

not know the impact of existing nonbypassable charges let alone the impact of then adding another enormous charge like the PCIA.

Consistent with AB 327, the Commission should approve a successor designed to achieve sustainable growth while ensuring that "the total benefits of the standard contract or tariff to all customers and the electrical system are approximately equal to the total costs." Proposals to apply the PCIA to NEM-3 customers are contrary to statutory intent and must be rejected.

c. SDG&E's September 1 Filing Undermines Parties' Call for Default Electrification Rates as a Result of This Proceeding.

On September 1, 2021, as scheduled, SDG&E filed an application for a rate design window that includes a proposed electrification rate.²³⁹ Pursuant to Rule 13.10, CALSSA asks that the Commission take official notice of the Application in this proceeding.²⁴⁰

Multiple parties have referred to this future SDG&E electrification rate. Sierra Club's mandatory electrification rate would switch to the new SDG&E rate once it is approved,²⁴¹ and SEIA/Vote Solar suggest that whatever is approved in the rate design window will become mandatory for NEM customers.²⁴² The Joint Recommendations refer to a "2022 Non-CARE net electrification rate" for SDG&E, but do not indicate whether that is a current rate or a rate to be approved later.²⁴³

²³⁸ Cal. Pub. Util. Code § 2827.1(b)(4).

A.21-09-001, Application of San Diego Gas & Electric Company (U 902 M) to Update Rate Design to Include a Residential Untiered Time-of-Use Rate With a Fixed Charge and Testimony of Gwendolyn Morien, Hannah Campi and April Bernhardt (September 1, 2021); A.21-09-001, pre-marked Exh. SDGE-02 at HC-10, Table HC-4.

²⁴⁰ CPUC Rules of Practice and Procedure, Rule 13.10.

²⁴¹ Sierra Club Opening Brief, p. 13; Exh. SCL-01 at 18:12-19:2.

SEIA/Vote Solar Opening Brief, p. 42.

²⁴³ Cal Advocates Opening Brief, p. A-11.

The proposed rate has a tiered demand charge that ranges as high as \$85 per month.²⁴⁴ The NEM-3 decision should not include an unapproved rate of any sort, but especially one with such a non-traditional structure that is certain to be controversial and may take months if not years to resolve.

d. TURN's Proposal Simply Does Not Work.

TURN states that their proposed engineering estimate for determining self-generation for the purpose of calculating a solar fee will not work for systems with energy storage "due to the complexity of storage dispatch." Statements of Witness Chait at hearings should convince the Commission that the metering option is not feasible. Therefore, the Commission must conclude that TURN's proposed "Grid Benefits Charge" cannot be implemented for systems with energy storage.

5. TURN's Dispatch Obligations

Within the NEM proceeding, TURN has proposed a new condition for participation in the Self Generation Incentive Program. TURN states, "The Commission should make participation in an electrification rate mandatory for any customer (including legacy NEM 1.0 and 2.0 customers) that installs paired storage after receiving an incentive through the Self-Generation Incentive Program (SGIP)."²⁴⁷ The proceeding that oversees that program issued a decision on mandatory rate structures in 2019 after lengthy debate.²⁴⁸ If TURN wishes to revisit that decision, it can petition to modify it or request a program change within SGIP. In general, it is

CALSSA Reply Brief

A.21-09-001, pre-marked Exh. SDGE-02 at HC-10, Table HC-4.

TURN Opening Brief, p. 83.

CALSSA Opening Brief, pp. 156-157.

TURN Opening Brief, p. 93.

²⁴⁸ See D.19-08-001.

notable that TURN has consistently opposed strong price signals for residential customers in rate cases, and now that some customers are adopting technology to respond to the price signals that exist, TURN wants stronger price signals but only for those customers.

Beyond TOU rates, TURN proposes a grid services tariff for NEM customers with energy storage, but participation would be voluntary and compensation would be figured out later.²⁴⁹ There is no reason for that proposal in this proceeding. The Commission has other venues to develop improved compensation for battery discharge during grid stress. Creating an undefined requirement in the NEM proceeding would not help.

6. The IOUs Seek to Foist the Cost of Interconnection and Communications Requirements on Customers With No Current Benefit.

The Joint IOUs' Opening Brief reiterates the utilities' request for customers to pay for DER functionality that currently has no current benefit or value stream and is being studied more deeply in other proceedings.²⁵⁰ The Joint IOUs propose that "interconnecting under the proposed default tariff would require certain communications and cyber security capabilities, for both PV solar and energy storage systems."²⁵¹ These requirements are under active consideration in other proceedings and should not be relitigated here.²⁵² Cybersecurity policy is under development in the Smart Inverter Working Group, which reports to R.17-07-007 and has met nine times on the issue since June 2020.²⁵³ The IOUs are planning to finalize a guidebook before the end of the

TURN Opening Brief, p. 96: "it would be reasonable to allow any customer to pre-select the maximum discharge level for emergency events."

Joint IOUs Opening Brief, pp. 71-73.

Exh. IOU-01 at 160:10-11.

Exh. CSA-02 at 65:4-23.

Id. (citing to meeting presentations at https://www.cpuc.ca.gov/general.aspx?id=4154).

year.²⁵⁴ A few pages in a brief and a couple of paragraphs in a NEM proposal should not circumvent the conclusions of a lengthy process on a highly technical and consequential subject.

The Joint IOUs testimony also states "[t]he default IEEE 2030.5/CSIP requires information sharing at no additional cost,"²⁵⁵ and the Joint IOUs repeat the statement in their Opening Brief.²⁵⁶ Neither is true, as explained in CALSSA's Direct Testimony. ²⁵⁷ IEEE 2030.5, and CPUC Resolution E-5000 that implements it for the California IOUs, requires that DERs use equipment with a proven *capability* for communication, not that they actively share information. ²⁵⁸ IEEE 1547:2018, which will replace that requirement in mid-2022, requires an on-site communications interface but does not require that customers maintain an active communications channel with the utility. ²⁵⁹ For cost responsibility, it is the customer's obligation to pay for the interface but not for delivery of information. ²⁶⁰ It is akin to saying the customer must leave a bin at the curb but that customer does not need to hire a truck to deliver it to the utility. ²⁶¹ Any California requirements to maintain active information sharing as a condition of interconnection would need to be considered carefully, and the Rule 21 or Grid Modernization proceedings are better venues for that debate than the NEM proceeding.

Joint IOUs Opening Brief, pp. 71-73.

Exh. IOU-01 at 161:24.

Joint IOUs Opening Brief, p. 73.

Id., pp. 71-73.

²⁵⁸ *Id*.

²⁵⁹ *Id*.

Exh. CSA-02 at 65:4-23 (citing to IEEE 1547: 2018, Section 10.7: Communication protocol requirements.).

Joint IOUs Opening Brief, pp. 71-73.

7. Reasoning to Allow Maintenance Is Still Valid

In D.14-03-041, the Commission concluded, "Additions or modifications to transitioning systems should remain eligible for the remainder of their transition period as long as the generation capacity is increased by no more than the greater of 10 percent of the system's capacity at the time the customer completes all application requirements to receive permission to operate (marking the beginning of the system's specific 20-year transition period) or 1 kW, not to exceed a total generation capacity of 1 MW, and is sized to meet but not exceed the customer's annual onsite load." This covers NEM-1 customers who can perform maintenance on their system without being forced onto NEM-2. D.16-01-044 was silent on this issue, so presumably the standard would carry forward for NEM-2 customers performing maintenance without being forced onto NEM-3. Clarifying as part of the NEM-3 decision that this policy will be continued could avoid future disputes. No party has proposed a different standard, meaning this is not a new or revised policy, and the Commission should therefore use language that is parallel to the language in D.14-03-041.

- C. Issue 5: Which of the analyzed proposals should the Commission adopt as a successor to the current net energy metering tariff and why? What should the timeline be for implementation?
 - 1. The Joint Recommendations' Interim Tariff Timeline Supports the CALSSA's Proposed Timeline.

CALSSA's Opening Brief demonstrates why the CALSSA proposal is the most direct and expedient route to NEM reform.²⁶³ While the Joint Recommendations' interim tariff suffers from the numerous deficiencies described above, the 90-day process for adoption cited in the document represents an admission from its signatories that simpler modifications to the NEM

D.14-03-041, p. 27.

²⁶³ CALSSA Opening Brief, pp. 201-208.

program can be implemented more quickly.²⁶⁴ While CALSSA questions the 90-day timeline, the Joint Recommendations usage of a percentage of the retail rate mirrors CALSSA's proposal and suggests CALSSA's Q3 2022 implementation timeline is feasible.²⁶⁵ Indeed, the Joint Recommendations' Interim Tariff is much more complex and completely unvetted, including, for example, movement to a non-tiered rate that does not exist in SDG&E's service territory,²⁶⁶ meaning the implementation of CALSSA's proposal is even easier than the interim tariff and can be accomplished more quickly.

2. The Joint IOUs' Buy-All/Sell-All Tariff Should Be Rejected.

The Joint IOUs Brief suggests that no party has opposed its Value of Distributed Energy ("VODE") proposal and, therefore, it should be adopted.²⁶⁷ The record does not support the Commission adopting a buy-all/sell-all tariff like the VODE, which would violate customers' right to generate and consume their own electricity.²⁶⁸ The VODE has not been vetted by either the Commission's consultant or parties to this proceeding.²⁶⁹ The Commission is appropriately considering grid services tariffs in R.14-10-003 and R.21-06-017.²⁷⁰ The VODE should not be adopted.

Joint Recommendations, p. 10.

²⁶⁵ *Id*.

²⁶⁶ *Id*.

Joint IOUs Opening Brief, pp. 122-124.

See CALSSA Opening Brief, pp. 142-146.

See Exh. CCS-02 at Attachment B, E3, Cost-effectiveness of NEM Successor Rate Proposals under Rulemaking 20-08-020 (May 28, 2021) (excluding any analysis of the VODE proposal).

R.14-10-003, Amended Scoping Memo of Assigned Commissioner and Joint Ruling with Administrative Law Judge, pp. 1-5 (February 12, 2018); R.21-06-017, Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future, pp. 13-24 (July 2, 2021).

D. Issue 6: Other issues that may arise related to current net energy metering tariffs and sub-tariffs, which include but are not limited to the virtual net energy metering tariffs, net energy metering aggregation tariff, the Renewable Energy Self-Generation Bill Credit Transfer program, and the net energy metering fuel cell tariff.

Erroneous IOU Data on Virtual Net Energy Metering ("VNEM") Systems

The Commission should be clear on the difference between Table 11 in CALSSA Rebuttal Testimony and Figure VI-11 in the Joint IOU Rebuttal Testimony.²⁷¹ Both show the extent to which VNEM and NEM-A span multiple feeders and transformers. The table from CALSSA presents the percentages in terms of the number of systems, while the figure from the Joint IOUs presents the percentages in terms of MW capacity.

CALSSA sent a data request to the utilities requesting the percentage of VNEM *systems* that are co-located with the load they serve.²⁷² PG&E responded with data on the percentage of VNEM *capacity* that is co-located. ²⁷³ Because that approach is not what CALSSA requested and could be skewed by a small number of large systems, CALSSA again requested the percentage of systems. The IOUs' response comprises the data CALSSA included in Rebuttal Testimony, showing that nearly all VNEM customers are on the same feeder as the associated solar system and around half of them are on the same service transformer.²⁷⁴

Further, the IOUs' Figure VI-11 has data that appears nonsensical, which demonstrates either calculation error or evidence that the capacity weighting distorts the picture. For the percentage of benefitting capacity that is on the same feeder (the middle column), the range for the different customer types is 84%-97%, yet the average of all of them is 80%, which is outside

Exh. CSA-02 at 73; Exh. IOU-02 at 110.

Exh. CSA-02 at Attachment 8 (p. 111 of pdf).

²⁷³ *Id.*

Id. at 73, Table 11.

of that range. For the percentage of benefitting capacity that is on the same transformer, the range is 31%-70%, yet the average across all types is 31%.²⁷⁵ The Commission should dismiss that data as erroneous or distorted and rely on CALSSA's figures.

Ivy Energy VNEM Proposal

CALSSA has proposed that certain VNEM customers receive export credits equivalent to those under NEM-2, including properties in census tracts with median income less than 100% of Area Median Income and properties that meet the eligibility requirements of the Solar on Multifamily Affordable Housing Program or the Multifamily Affordable Solar Housing Program.²⁷⁶ Ivy Energy proposes export credits equivalent to those under NEM-2 for all VNEM properties. CALSSA maintains its proposal but supports Ivy Energy's proposal.

Title 24 and Multifamily Housing

The Title 24 requirements for solar on multifamily housing make strong NEM credit value extremely important for California renters. If solar does not have reasonable value, the solar mandate will lead to higher rents. This not only impacts the tenants of the new solar properties, but also the tenants of nearby properties because rents are generally established through comparison with other properties in the area.²⁷⁷

Unsupported IOU Statements

The Joint IOUs in their opening brief make an unsupported statement that VNEM generation costs less per kW, ²⁷⁸ which is not always the case due to complexities in system development. The Joint IOUs also state that the payback period for VNEM should be less, "all

²⁷⁵ Exh. IOU-01 at 110, Figure VI-11.

Exh. CSA-01 at 24:19-25:2.

Exh. IVY-01 at 10:2-11:19.

Joint IOU Opening Brief, p. 119.

other things being equal."²⁷⁹ The IOUs have not established that all other things actually are equal. CALSSA would welcome a commitment from the IOUs that all other things shall be equal, including the treatment of onsite netting.

VI. RETROACTIVE CHANGES

A. Sierra Club's Electrification Proposal is Disputed and Should be Rejected.

Sierra Club's opening brief erroneously asserts no party disputed its witness's testimony with regard to whether putting NEM-1 and NEM-2 customers on electrification rates would actually encourage electrification.²⁸⁰ CALSSA's rebuttal testimony demonstrated the problem with that proposal, which is evident in Sierra Club's premise: "transitioning rates without electrification causes bill increases, while transitioning rates with electrification causes bill savings."²⁸¹ The idea is that if the Commission raises rates on NEM-1 and NEM-2 customers, by "transitioning" them to TOU rates with higher fixed charges, customers will have an incentive to electrify.²⁸² If they electrify, replacing gas appliances with electric ones and increasing their loads, then they will save money compared to the *status quo*.²⁸³

Few customers would be willing to trust a Commission to provide incentives for further investments while that same Commission is working simultaneously to undermine the value of their current investments. ²⁸⁴ The policy justifications underlying Sierra Club's direct testimony are good ones: all parties to this proceeding agree electrification is an important goal, customers

CALSSA Reply Brief

²⁷⁹ *Id*.

Sierra Club Opening Brief, pp. 3-4.

Exh. SCL-02 at 20:13-15.

Exh. CSA-02 at 61:6-25.

²⁸³ Exh. SCL-01 at 19:18 to 20:3; 20:9-11.

Exh. CSA-02 at 61:6-25.

should be encouraged to shift solar energy production to on-peak periods, and behind-the-meter storage is an important technology that must be encouraged.²⁸⁵ However, Sierra Club and the Joint Recommendations' approaches sow distrust in Commission policies, treating customers like they are part of an investment scheme in which victims are encouraged to make an initial investment and then later told they need to make more investments in order to maintain the value of their initial investment. ²⁸⁶ Few customers would buy that value proposition because it sounds like the Commission is baiting them; more likely, customers will be frustrated and angry that the Commission took away the value of their investment in the first place.²⁸⁷

B. TURN's Opening Brief and the Joint Recommendations Studiously Ignore the Safe Harbor Provision.

TURN's Opening Brief argues that the Commission can modify the legacy treatment of NEM customers, meaning its surcharge on NEM-1 customers to fund its market transition credit for new customers can be applied to existing customers. The Joint Recommendations also adopt some of the Pro-Transmission Parties' call for an "equity fee" to apply to existing NEM customers. Both documents fail to address the fact that Section 2827(g) of the Public Utilities Code prohibits the application of solar-specific fees to NEM-1 customers: "each net energy metering contract or tariff" is required to "be identical, with respect to rate structure, all retail rate components, and any monthly charges, to the contract or tariff to which the same customer would be assigned if the customer did not use a renewable electrical generation facility." TURN's "surcharge" and the "equity fee" proposal in the Joint Recommendations violate this

²⁸⁵ *Id.*

²⁸⁶ *Id*.

²⁸⁷ *Id.*

TURN Opening Brief, pp. 52-53.

²⁸⁹ Cal. Pub. Util. Code § 2827(g).

safe harbor provision by assigning fees to those customers to which the customers would not otherwise be subject but for their use of a rooftop solar system.²⁹⁰ These fees violate the law.

VII. CONCLUSION

For the myriad legal and policy reasons discussed in detail in this Reply Brief, and in CALSSA's Opening Brief, CALSSA urges the Commission to adopt CALSSA's proposal and reject the Pro-Transmission Parties' Proposals. While the aggressive timelines the Commission established for this proceeding do not permit CALSSA's briefs to address every party's proposal, components of other parties' proposals align with those of the Pro-Transmission Parties. CALSSA does not agree with those components, which suffer from the same shortcomings as those proposed by the Pro-Transmission Parties, and CALSSA likewise urges the Commission to reject them for the reasons stated herein.

Dated: September 14, 2021 Respectfully submitted,

Tim Lindl Julia Kantor KEYES & FOX LLP 580 California Street, 12th Floor

San Francisco, CA 94104 Telephone: (510) 314-8385

E-mail: <u>tlindl@keyesfox.com</u> <u>jkantor@keyesfox.com</u>

Exh. CSA-02 at 16:20.

⁹⁰ Fv1

Attachment A

Acronym Table

TABLE OF ACRONYMS

Acronym	Description
A.	Application
AB	Assembly Bill
ACC	Avoided Cost Calculator
ALJ	Administrative Law Judge
Cal Advocates	Public Advocates Office at the California Public Utilities Commission
CALSSA	California Solar and Storage Association
CalWEA	California Wind Energy Association
CARE	California Alternate Rates for Energy
CEC	California Energy Commission
CPUC	California Public Utilities Commission
CUE	The Coalition of California Utility Employees
D.	Decision
DAC	Disadvantaged Communities
DER	Distributed Energy Resources
ESP	Electric Service Provider
FERC	Federal Energy Regulatory Commission
IEPA	Independent Energy Producers Association
IOU	Investor-Owned Utility
IRP	Integrated Resource Plan
Joint IOUs	Southern California Edison Company, Pacific Gas & Electric
	Company, and San Diego Gas & Electric Company
kW	kilowatt
kWh	kilowatt-hour
MW	megawatt
NBC	Non-bypassable Charge
NEM	Net Energy Metering
NRDC	The Natural Resources Defense Council
PAO	Public Advocates Office
PCF	Protect Our Communities Foundation
PCT	Participant Cost Test
PG&E	Pacific Gas and Electric Company
RPS	Renewable Portfolio Standard
PURPA	Public Utility Regulatory Policies Act
QF	Qualifying Facility
R.	Rulemaking
RIM	Ratepayer Impact Measurement
SCE	Southern California Edison
SDG&E	San Diego Gas and Electric Company
SEIA	Solar Energy Industries Association
STORE	Savings Through Ongoing Renewable Energy
TRC	Total Resource Cost
TURN	The Utility Reform Network

VNEM	Virtual Net Energy Metering
VS	Vote Solar